EXHIBIT 1

DOI: 10.1111/1745-9133.12485

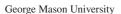
CRIMINOLOGY & Public Policy

SPECIAL ISSUE ARTICLE

COUNTERING MASS VIOLENCE IN THE UNITED STATES

Assessing the potential to reduce deaths and injuries from mass shootings through restrictions on assault weapons and other high-capacity semiautomatic firearms

Christopher S. Koper



Correspondence

Christopher S. Koper, Department of Criminology, Law & Society, Center for Evidence-Based Crime Policy, George Mason University, 4400 University Drive, MS 6D12, Fairfax, VA 22030. Email: ckoper2@gmu.edu

The author thanks William Johnson for research assistance in the preparation of this paper. An earlier version of this paper was presented at the George Mason University-Carnegie Mellon University Workshop on An Evidence-Based Approach to Understanding and Countering Mass Violence in America held in April 2019 with funding from the National Science Foundation. The author thanks conference participants for their comments on the earlier draft.

Research Summary: This article examines the use, impacts, and regulation of assault weapons and other high-capacity semiautomatic firearms as they pertain to the problem of mass shootings in the United States. Highcapacity semiautomatics (which include assault weapons as a subset) are used in between 20% and 58% of all firearm mass murders, and they are used in a particularly high share of public mass shootings. Mass shootings perpetrated with these firearms result in substantially more fatalities and injuries than do attacks with other firearms, and these differences are especially pronounced for the number of victims with nonfatal gunshot injuries. The federal ban on assault weapons and large-capacity (>10 rounds) ammunition magazines of 1994 had exemptions and loopholes that limited its short-term effects, but its expiration in 2004 was followed by an increase in the use of these weapons in mass shootings and other crimes. Growing evidence suggests that state-level restrictions on large-capacity magazines reduce mass shootings, but further research is needed on the implementation and effects of these laws.

Policy Implications: Restrictions on large-capacity magazines are the most important provisions of assault weapons laws in part because they can produce broader reductions in the overall use of high-capacity semiautomatics that facilitate high-volume gunfire attacks. Data on mass shooting incidents suggest these magazine restrictions can

potentially reduce mass shooting deaths by 11% to 15% and total victims shot in these incidents by one quarter, likely as upper bounds. It may take several years for the effects of these laws to be fully realized, however, depending on their specific provisions, especially with regard to treatment of pre-ban weaponry.

Dating back to the 1980s, public concern over mass shootings in the United States has prompted ongoing debates about the need to restrict particularly deadly categories of firearms that can facilitate the commission of such acts. These debates have focused broadly on semiautomatic firearms with large ammunition capacities and more specifically on subsets of these firearms, known as "assault weapons," with additional military-style features that are believed to make them more dangerous and/or attractive for criminal uses. Over the last several decades, these types of firearms have been used in many of the most deadly and injurious acts of mass violence in the United States. In response, the federal government imposed restrictions on these weapons in 1994 but allowed them to expire in 2004. Debates about reinstating these restrictions have intensified during the last few years mainly in response to several recent and highly tragic public mass shootings perpetrated with assault weapons or other high-capacity semiautomatics. Although efforts to revive the federal restrictions have been unsuccessful to date, nine states and the District of Columbia currently have their own restrictions on such weapons, as do some additional localities (see the Giffords Law Center to Prevent Gun Violence at https://lawcenter.giffords.org/).

In this essay, I examine available data on the use of assault weapons and other high-capacity semiautomatics in mass shootings and investigate the potential to reduce deaths and injuries from mass violence through restrictions on these weapons. I also examine whether federal and state restrictions on these weapons have been effective in reducing their use in mass shootings. In summary, available evidence, while limited in quantity and precision, suggests that restrictions on these weapons have the potential to reduce deaths and injuries from mass shootings, at least modestly and perhaps by more substantial margins, especially for nonfatal injuries. Despite the limitations of the prior federal law restricting these weapons, its expiration has coincided with a rise in crimes with high-capacity semiautomatics that has likely contributed to higher victim counts in mass shootings. The effects of state-level restrictions, which vary in important ways, are not yet clear, even though there is growing evidence that states with these restrictions have fewer mass shootings. Having noted these tentative conclusions, there is need for better data and more in-depth research on various aspects of this issue.

1 | OVERVIEW ON THE AVAILABILITY, USE, AND RESTRICTION OF ASSAULT WEAPONS AND OTHER HIGH-CAPACITY SEMIAUTOMATICS

Laws aimed at curbing the availability and use of semiautomatic assault weapons (AWs) and other high-capacity semiautomatics focus on two categories of weaponry. AW laws impose restrictions on semiautomatic firearms that accept detachable ammunition magazines and have one or more additional military-style features that are considered useful in military and criminal applications but unnecessary in shooting sports or self-defense. Examples of the latter features include pistol grips on rifles, flash hiders, folding rifle stocks, threaded barrels for attaching silencers, and barrel shrouds on pistols.²

AW laws are typically complemented by restrictions on large-capacity magazines (LCMs), which are most commonly defined as ammunition feeding devices holding more than 10 rounds of ammunition. Some LCM laws allow or have previously allowed higher limits for some or all firearms, and a few states have LCM restrictions without bans on AWs (all states with AW bans currently have LCM bans, but that has not always been true). Other salient features of these laws are discussed in subsequent sections.

LCM restrictions are arguably the most important components of AW–LCM laws—and thus the most relevant to the amelioration of mass shootings—for two reasons. One is that an LCM is the most functionally important feature of an AW-type firearm. Guns defined as AWs can often be equipped with LCMs holding 30 or more rounds; hence, removing LCMs from these weapons greatly limits their firepower. In other respects, AW-type firearms do not operate differently than other comparable semiautomatics, nor do they fire more lethal ammunition. The second reason is that LCM restrictions also apply to the much larger class of high-capacity semiautomatics without military-style features. This includes many common semiautomatic pistol and rifle models that are sold with LCMs in the range of 11–20 rounds or sometimes higher. LCM restrictions do not ban all firearms capable of accepting LCMs, but they do limit the capacity of the ammunition magazines that can be sold for these weapons. LCM restrictions thus have the ability to affect a much larger share of gun crimes. Accordingly, the discussion below places a greater emphasis on the overall use and restriction of firearms with LCMs. (The terms "LCM firearm" and "high-capacity semiautomatic" are used interchangeably throughout this essay to refer to any semiautomatic with an LCM, including both AW and non-AW models.)

In the broadest sense, AW–LCM laws are intended to reduce gunshot victimizations by limiting the stock of semiautomatic firearms with large ammunition capacities and, to a lesser degree, other features conducive to criminal use. Although offenders blocked from access to AWs and LCMs can commit crimes with other guns and smaller magazines, the logic underlying AW–LCM laws is that forcing this substitution should limit the number of shots fired in gun attacks, thus, reducing the number of people shot per attack and/or the number sustaining multiple wounds. This idea is supported by a small number of studies suggesting that attacks with semiautomatic firearms—including AWs and other guns equipped with LCMs—tend to result in more shots fired, more persons wounded, and more wounds inflicted per victim than do attacks with other firearms (Jager et al., 2018; Koper, 2004; McGonigal et al., 1993; Reedy & Koper, 2003; Richmond, Branas, Cheney, & Schwab, 2004; Roth & Koper, 1997). With respect to mass shootings in particular, AW and LCM use could conceivably affect both the prevalence and the severity of mass shootings by increasing the likelihood that shooting incidents produce enough victims to qualify as a mass shooting (Jager et al., 2018) and increasing the number of fatalities and injuries per mass shooting. Evidence on these matters is considered in more detail below.

Semiautomatic weapons with LCMs and other military-style features are common among models produced in the contemporary gun market (e.g., Lee, 2014; Violence Policy Center, 2011), but precise estimates of their production and ownership are unavailable.³ National survey estimates indicate that 18% of all civilian-owned firearms and 21% of civilian-owned handguns were equipped with magazines having 10 or more rounds in 1994 (Cook & Ludwig, 1996, p. 17) just before the passage of the federal AW–LCM ban, which prohibited further production of LCMs but allowed continued ownership and sale of pre-ban LCMs. More recent estimates are not available, but these numbers have likely grown since the federal ban expired in September 2004.

Recent studies of criminal use of AWs and other LCM firearms indicate that AWs (primarily assault-type rifles) account for 2% to 12% of guns used in crime in general (based on analysis of guns recovered by police), with most estimates suggesting they account for less than 7%. In combination, however, AWs and other high-capacity semiautomatics account for 22% to 36% of crime guns overall,

and some estimates suggest they account for higher shares (upward of 40%) of guns used in serious violence (Koper, Johnson, Nichols, Ayers, & Mullins, 2018). Notably, high-capacity semiautomatics have grown by as much as 112% as a share of crime guns since the expiration of the federal ban. This trend has coincided with recent growth in shootings nationwide (Fowler, Dahlberg, Haileyesus, & Annest, 2015; Koper et al., 2018) and may also be linked to a rising incidence of high-volume gunfire incidents (Koper, Johnson, Stesin, & Egge, 2019). Mass shootings in public locations have also grown in incidence and severity (i.e., victim counts) during this time (Duwe, 2020, this issue; Lankford & Silver, 2020, this issue), and many of these recent tragedies have been perpetrated by offenders using AWs or other high-capacity semiautomatics. The Citizens Crime Commission of New York City (CCCNYC), for instance, reported that there were 19 public mass shootings between 2005 and February 2018 in which offenders with LCM firearms killed at least four people and in total killed or wounded at least 10 (Cannon, 2018). These developments suggest the need for a closer examination of the degree to which AW and LCM use contribute to deaths and injuries from mass violence.

2 | USE AND IMPACTS OF HIGH-CAPACITY SEMIAUTOMATICS IN MASS SHOOTINGS

Measuring the use of AWs and other LCM firearms in mass shooting incidents presents several challenges. For one, there is no universal definition of a mass shooting incident. Across different data sources and studies, researchers have defined these incidents using different numeric thresholds based on fatalities and/or total victim counts. The discussion below focuses on studies of firearm mass murders defined as incidents in which at least four persons were killed, not including the shooter if applicable and irrespective of the number of additional victims shot but not killed. This is consistent with many prior studies of mass shootings. Inferences about the use of AWs and other LCM firearms in mass shootings, however, could differ based on other fatality thresholds or definitions of mass shootings that are based on wounded victims.

A further complication is that there is no official data source that regularly provides detailed and comprehensive data on the types of guns and magazines used in shooting incidents or that provides full counts of victims killed and wounded in these attacks. Accordingly, detailed information on mass shootings and the weapons involved must be gathered mainly from media searches, open sources, and public databases that have been compiled by various media, public interest, research, and government organizations. Analyses based on these sources are thus contingent on their comprehensiveness and accuracy. Some sources attempt to capture all mass shootings (however defined), whereas others focus specifically on public mass shootings that are unrelated to other forms of crime (like robbery, gang, or drug violence). This particular type of mass shooting has become an increasing societal concern as result of the seemingly random nature of many of these incidents, their substantially higher and growing victim counts (Duwe, 2020; Krouse & Richardson, 2015; Lankford & Silver, 2020), and the higher use of AWs and other high-capacity semiautomatics in these incidents (on the latter point, see below; also see Duwe, 2007; Koper et al., 2018; Krouse & Richardson, 2015).

Finally, there are notable difficulties surrounding the identification of AWs and other LCM firearms in these public sources. Information on weapons and magazines used is often missing or insufficiently detailed to make a definitive determination as to whether the firearm(s) used was an AW or an LCM firearm; hence, reported counts of these weapons are often minimum estimates of their use. The identification of AWs may also vary somewhat across sources as there is no universal definition of an AW that applies across all current and past federal and state AW laws. Sources vary, moreover, in the extent to which they document these issues when AW and LCM firearm counts are reported.

TABLE 1 Selected estimates of assault weapon and large-capacity magazine use in firearm mass murders

| Data Source and Sample | % With Any LCM Firearm | % With AW Model |
|---|------------------------------------|--|
| Everytown for Gun Safety (2018): all firearm mass murders with 4+ killed, 2009–2017 (<i>N</i> = 173) | 20% (min) – 58% (max) | Not estimated |
| Koper et al. (2018): all firearm mass murders with 4+ killed, 2009–2015 (N = 145) | 19% (min) – 57% (max) | 10% (min) – 36% (max) |
| Krouse and Richardson (2015): all firearm mass murders with 4+ killed, 1999–2013 (<i>N</i> = 317) | Not estimated | 10% (all incidents) 27% (public incidents) |
| Klarevas (2016): all firearm mass murders with 6+ killed, 1966—2015 (N = 111) | 47% (all years) 67% (2006–2015) | 25% (all years) 26% (2006–2015) |
| Mother Jones (Follman, Aronsen, & Pan, 2019): public firearm mass murders with 4+ killed that did not involve other crimes, 1982–Jan. 2019 (N = 92) | 45% – 61%, or higher | Not estimated |

Notes. The maximum estimates from Everytown (2018) and Koper et al. (2018) are based on calculating LCM or AW cases as a percentage of only those cases in which a definitive determination could be made about the weapon type. The Koper et al. LCM counts include cases involving gun models typically sold with an LCM, even if the magazine recovered was not explicitly reported. The estimates from Mother Jones (Follman et al., 2019) are original tabulations using data available as of this writing and exclude cases with fewer than four fatalities. The Mother Jones range is based on cases with explicit reporting of an LCM (45%) combined with cases that clearly involved gun models typically sold with an LCM (totaling 61%). The estimate would be higher if adjusted for missing gun model data.

2.1 | Estimates of the use of high-capacity semiautomatics in mass shootings

Having stated these caveats, I present several estimates of the use of AWs and other LCM firearms in mass murder shooting incidents in Table 1. This collection does not include all AW and LCM estimates that researchers have reported but focuses, rather, on recent estimates (post-2000) and specialized sets of cases that seem particularly pertinent to the AW–LCM debate. In some instances, the table highlights multiple figures of interest reported by researchers. Additional details about the estimates are provided in the table notes.

These studies suggest that LCM firearms are used in at least 20% of all firearm mass murders; adjusting for missing gun data in available sources, this figure could be upward of 50% (Everytown for Gun Safety, 2018; Koper et al., 2018). Specific AW models are used in at least 10% of all firearm mass murders and potentially as many as a third, adjusting for missing data (Koper et al., 2018; Krouse & Richardson, 2015). The use of AWs and other high-capacity semiautomatics is higher in public mass shootings (Follman et al., 2019; Krouse & Richardson, 2015) and in cases that involve higher fatality counts (Klarevas, 2016). Most notably, estimates suggest that LCM firearms are involved in approximately half to two thirds of public mass shootings and firearm mass murders involving six or more fatalities. Furthermore, some data suggest that the use of high-capacity semiautomatics in mass murders has been rising over time (Klarevas, 2016).

Overall, these figures suggest that high-capacity semiautomatics are used disproportionately in mass shootings relative to their use in gun crime more generally (see prior discussion of Koper et al., 2018). This pattern likely reflects a combination of the greater firepower of these weapons and the

characteristics and intentions of shooters who use them in these rampages. These estimates also serve as rough upper bound estimates of the extent to which LCM restrictions might reduce the occurrence of firearm mass murders. Most conservatively, they imply that eliminating LCM use might reduce the overall incidence of firearm mass murders up to 19% to 20% based on minimum estimates of their use in these cases and contingent on the four-fatality threshold. The actual effect might well be considerably smaller, however, because offenders could likely kill four or more victims in many of these cases even if using non-LCM firearms.

Developing a better understanding of the extent to which LCM firearm use affects the incidence of firearm mass murders would require studies comparing representative samples of attacks with LCM and non-LCM firearms to determine how LCM use affects the likelihood of a shooting incident resulting in a mass casualty event. One step in this direction has been taken by Jager et al. (2018), who studied weapon types used and victim differentials in active shooter incidents documented by the FBI from 2000 to 2017. The FBI defines these incidents as cases in which an individual is killing or attempting to kill people in a confined or populated area, irrespective of the number of persons killed or wounded (see https://www.fbi.gov/about/partnerships/office-of-partner-engagement/active-shooter-resources). Adjusting via regression modeling for the use of multiple firearms (which arguably reflects on the shooter's intentionality) and the location and year of the shooting, Jager et al. (2018) found that incidents involving semiautomatic rifles (which accounted for 25% of the cases and serve as a rough approximation of the use of AW-type and other LCM rifles) resulted in 97% more fatalities and 81% more wounded victims. 12 On average, semiautomatic rifle cases involved 4.3 fatalities and 5.5 persons wounded in contrast to 2.5 fatalities and 3.0 persons wounded in other cases. Although more work is clearly needed on this issue, these findings support the hypothesis that use of high-capacity semiautomatics has some impact on the incidence of mass murders.

2.2 | Impacts of high-capacity semiautomatics on mass shooting outcomes

Several studies have contrasted counts of victims killed and wounded in mass shootings with and without high-capacity semiautomatics. Selected figures from these studies are reported in Table 2, with a focus on victim differentials associated with use of any LCM firearm as reported in recent studies or specialized studies of public shootings or incidents with especially high fatality counts. ¹³ Based on these victim differentials, I also offer some projections of gunshot victimizations that could potentially be prevented through restrictions on LCMs. Note that the figures used from the most recent studies exclude the October 2017 Las Vegas mass shooting that resulted in 58 deaths and 413 injuries. This outlier event, which involved LCM weapons, resulted in several times more victims shot and killed than have all other firearm mass murders (its exclusion makes the LCM victim differentials in Table 2 more conservative).

Data from these studies consistently indicate that use of LCM firearms contributes to more deaths and injuries in mass shooting attacks and that this impact is most pronounced for counts of persons wounded (as reflected in Table 2 for the total victim counts). Across the studies, average fatalities are 38% to 85% higher when LCMs are used (based on the Klarevas [2016] and Everytown [2018] studies, respectively), with most estimates in the range of 60% to 67% (all other cited sources). Total victims killed and wounded, in contrast, are two to three times higher when LCMs are used in all sources with information on wounded victims. This is consistent with the concern that LCM weapons enable rapid spray fire that, although perhaps less accurate, gives offenders the ability to wound higher numbers of victims, particularly in crowded public settings. Another pattern that be gleaned from Table 2 is that the LCM victim differentials are a result in large measure of public mass shootings, which tend to produce higher victim counts in general but especially when LCM weapons are used.¹⁴

TABLE 2 Selected reports of victim differentials by large-capacity magazine use and estimates of potential victim reductions from large-capacity magazine restrictions

| vicinii reductions from large-capacity magazine resurctions | | | | | |
|---|-----------------------------|--|--|--|--|
| Data Source and Sample | Avg. Fatalities | Avg. Victim Totals (Killed and Injured) | Estimated Reduction From LCM Restriction | | |
| Everytown for Gun Safety (2018): all firearm mass murders with 4+ killed, 2009–2017 (<i>N</i> = 172, excluding the Oct. 2017 Las Vegas incident) | LCM: 8.7 Non-LCM: 4.7 | LCM: 16.1 Non-LCM: 6.0 | 14% (deaths) 26% (total deaths and injuries) | | |
| Koper et al. (2018): all firearm mass murders with 4+ killed, 2009–2015 ($N = 145$) | LCM: 7.5 Non-LCM: 4.6 | LCM: 13.7 Non-LCM: 5.2 | 11% (deaths) 24% (total deaths and injuries | | |
| Klarevas (2016): all firearm mass murders with 6+ killed, 1966–2015 (N = 111) | LCM: 9.5 Non-LCM: 6.9 | Not estimated | 15% (deaths) | | |
| Citizens Crime Commission of New York City (Cannon, 2018): public firearm mass murders with 4+ killed that did not involve other crimes, Jun. 1984–Feb. 2018 (<i>N</i> = 78, excluding Oct. 2017 Las Vegas incident) | LCM: 9.7 Non-LCM: 5.8 | LCM: 20.5 Non-LCM: 8.8 | 30% (deaths) 46% (total deaths and injuries) | | |
| Dillon (2013): public firearm mass murders with 4+ killed that did not involve other crimes as reported by <i>Mother Jones</i> , 1982–2012 (<i>N</i> = 62) | LCM: 10.19 Non-LCM: 6.35 | LCM: 22.58 Non-LCM: 9.9 | 23% (deaths) 39% (total deaths and injuries) | | |

Notes. Calculations conducted by the author from the listed sources. The Everytown (2018) and Cannon (2018) data exclude the outlier Oct. 2017 Las Vegas LCM case that resulted in 58 killed and 413 injuries. Non-LCM calculations for the Everytown data are based on the highest victim estimates for cases that did not clearly involve an LCM (i.e., cases that definitely did not involve LCMs and cases with unknown LCM status).

Extrapolating from these patterns, we can also make rough estimates of the degree to which deaths and injuries in mass shooting events might be reduced by restrictions on LCMs. These calculations use the victim averages for non-LCM cases to estimate the level of death and injury that would have resulted from the LCM cases had attackers been forced to substitute non-LCM firearms. These estimates can then be used to project the number and percentage of deaths and injuries that could have been prevented across the full sample of incidents. As shown in the final column of Table 2, the projections suggest that LCM restrictions could potentially reduce fatalities by 11% to 15% across all firearm mass murder incidents and reduce total injuries by 24% to 26%. Effects would likely be greater for public mass shootings, with total deaths and injuries in these cases potentially declining by somewhere between

one third and one half. The specific magnitudes of the estimates for public mass shootings, however, should be viewed with particular caution, given some of the concerns surrounding the completeness of those data sources and variations thereof (e.g., see Duwe, 2007, 2020). Also note that the prevention estimates overall would be higher if the Las Vegas incident was included in the most recent data sources. ¹⁶

These estimates should be viewed as approximations based on several considerations. For starters, they are based on comparisons of victim differentials in LCM and non-LCM attacks that produced enough casualties to qualify as mass shootings. These attacks were perpetrated by offenders with a clear intent to shoot a large number of people, and they may provide the best estimates of LCM impacts under such conditions. Nonetheless, estimated LCM impacts on attack outcomes might possibly be larger or smaller if based on more comprehensive samples that included attempted, actual, and near mass shootings (e.g., Jager et al., 2018). The potential of LCM restrictions to reduce mass shootings might also be underestimated here if the availability of high-capacity semiautomatics increases the likelihood that some people will attempt mass shootings.

On the other hand, the impacts of LCM restrictions might be lower than these projections even with very large reductions in LCM availability. This is in part because some shooters with LCM weapons, notably those who had a clear intent and plan to kill and wound especially high numbers of victims, would have likely inflicted higher than average casualty counts even if they had used non-LCM firearms, although perhaps not to the same degree. One obvious adaptation to LCM restrictions would be to carry multiple non-LCM guns and/or low-capacity magazines. We should not assume, however, that use of multiple guns or magazines would completely negate the impacts of LCM use. Use of multiple firearms and magazines, while common in firearm mass murders, is not universal; some firearm mass murders (as well as other attacks with the potential to become mass shootings) happen spontaneously or without much premeditation. In such incidents, the lethality of the firearms and magazines at hand may be particularly consequential to the outcome. Furthermore, using multiple non-LCM guns and magazines for a sustained attack requires a shooter to make gun and/or magazine changes that reduce the rate of fire relative to using firearms with LCMs (e.g., see Klarevas, 2016, pp. 211–212). This arguably gives people under attack additional seconds to escape, take cover, or possibly overtake and incapacitate the shooter.

Although evaluating these arguments fully will require more in-depth analyses of the dynamics of mass shooting incidents (and perhaps near mass shooting incidents as well), available data and analyses do not provide obvious support for the multiple gun/multiple magazine substitution hypothesis, at least not with respect to the use of multiple guns. For example, in Koper et al.'s (2018) collection of mass firearm murders resulting in four or more deaths, cases in which shooters used multiple non-LCM guns averaged 5.3 fatalities and 7.2 total victims killed or wounded—averages substantially less than those for attacks with LCM firearms (regardless of number), especially for the total victim counts (see Table 2). Similarly, multiple gun cases without LCMs documented in the February 2019 version of the *Mother Jones* media organization's data on public firearm mass murders (4+ killed; Follman et al., 2019) resulted in substantially fewer victims killed and wounded than did cases with LCM firearms; averages killed were 7.2 for multiple non-LCM firearm cases and 10.0 for LCM cases (excluding the Las Vegas incident), whereas averages for the total killed and wounded were 11.4 for multiple gun non-LCM cases and 21.3 for LCM cases (excluding the Las Vegas incident).

Others have also reported that victim differentials associated with the use of LCM firearms or semi-automatics more generally persist even when accounting for the use of multiple firearms (Blau, Gorry, & Wade, 2016; Jager et al., 2018; Klarevas, 2016). To illustrate, data reported by Klarevas (2016, pp. 221–224) show that "gun massacres" (defined as incidents with six or more fatalities) committed with multiple non-LCM firearms average 7.2 victims killed (calculated by the author from the Klarevas

figures), whereas LCM cases average 9.5 victims killed overall (see Table 2) and 11.2 victims killed when multiple guns are used that include an LCM firearm. As a final illustration, Kleck's compilation of shots fired estimates for a sample of 25 mass shootings that resulted in six or more victims killed or wounded from 1994 to 2013 shows that cases involving LCM firearms averaged at least 134 shots on average in comparison with \sim 26 shots on average for cases involving multiple non-LCM firearms (calculated from Kleck, 2016, p. 43). ^{18,19}

Notwithstanding these arguments, a more general caveat to this discussion is that the comparisons of mass shootings with and without LCM firearms reviewed above are bivariate and do not account for characteristics of the actors or situations that might influence attack outcomes and potentially confound the relationship between the types of weapons used and these outcomes. Such factors could include, among others, the intentions, motives, mental state, and skill of the shooter(s); the nature of the circumstances surrounding the shooting (e.g., offender and victim relationships); the type of location where the shooting occurred (e.g., whether it was indoors or outdoors, the type of venue, and how confined potential victims were); the number of people present who could have been shot deliberately or incidentally; the characteristics and health of potential victims; the number of shooters; and the numbers and types of weapons and magazines used. At present, such studies are lacking, but a few efforts have been made in this direction, such as the Jager et al. (2018) study referenced above. Similarly, in a regression analysis of 184 mass shootings, spree shootings, and active shooter incidents from 1982 through 2015, Blau et al. (2016) found that use of LCM firearms (but not AWs) increased fatality and total victim counts by 47% and 61%, respectively, controlling for several characteristics of the offenders and incidents. These covariates included the offender's mental health, age, and race, whether the incident occurred in a school or workplace, and the types of guns used by the offender.²⁰ Other studies suggest the need to also examine the interactions of elements like the shooter's mental health and the weaponry used in determining attack outcomes (Anisin, 2018).

Additional and more in-depth studies along these lines are needed to provide more precise estimates of the effects of high-capacity semiautomatics on the incidence and outcomes of mass shootings. It would also be helpful to have more detailed analyses of the dynamics of these events that reveal the number and timing of shots fired and persons hit (e.g., peak rates of fire and whether shots were fired in high-volume spurts or in continuous fashion), timing of reloads (if applicable), shots fired and persons hit with specific guns and magazines (if multiple guns or magazines were used), and victims killed or wounded with rounds fired in excess of ten when LCM firearms were used. Such information would likely have to be collected from police reports, forensic analyses, and court documents. Yet, despite the limitations of the currently available data and analyses, the differences in outcomes between LCM and non-LCM attacks are large enough to suggest that LCM restrictions could produce at least modest reductions in mass shooting fatalities and injuries over time.²¹ In the next section, I turn to what is known about current and previous efforts to regulate LCM availability.

3 | EFFECTS OF ASSAULT WEAPON AND LARGE-CAPACITY MAGAZINE RESTRICTIONS ON MASS SHOOTINGS

During the last few decades, there have been several efforts to restrict the availability of AWs and LCMs at the national, state, and local levels. Below, I review research that has been conducted on federal and state restrictions, highlighting key features of these laws and what is known about their impacts on AW–LCM use and mass shootings. I also briefly address lessons that might be drawn from similar gun control measures implemented outside the United States.

3.1 | The federal assault weapons and large-capacity magazine ban of 1994

The federal AW-LCM law passed in 1994 imposed a ten-year ban on the "manufacture, transfer, and possession" of AWs and LCMs holding more than ten rounds of ammunition. The law's AW provision specifically prohibited 18 models and variations by name as well as revolving cylinder shotguns. It also contained a generic "features test" provision that generally prohibited other semiautomatic firearms having two or more military-style features. Other details of the law's provisions and coverage are reviewed elsewhere (Koper, 2004). A key feature needing emphasis here, however, is that the ban exempted all AWs and LCMs that were manufactured prior to the law's effective date of September 13, 1994. These guns and magazines were thus "grandfathered" and legal to own and transfer. Although imprecise, estimates suggest there were upward of 1.5 million privately owned in the United States when the ban took effect (Koper, 2004, p. 10). Moreover, gun owners in America possessed an estimated 25 million guns that were equipped with LCMs or ten round magazines in 1994 (Cook & Ludwig, 1996, p. 17), and gun industry sources estimated that, including aftermarket items for repairing and extending magazines, there were at least 25 million LCMs available in the country as of 1995. On top of this existing stock, an additional 4.8 million pre-ban LCMs were imported into the country from 1994 through 2000 under the grandfathering exemption, with the largest number arriving in 1999 (Koper, 2004, pp. 65-66). During this same period, importers were also authorized to import an additional 42 million pre-ban LCMs that may have arrived after 2000.

The short- and long-term effects of the federal AW–LCM ban on gun markets and gun violence more generally have been reported elsewhere (Koper, 2004, 2013; Koper & Roth, 2001, 2002; Roth & Koper, 1997, 1999; also see Gius, 2014). In short, the ban had mixed effects in reducing crimes with the banned weaponry as a result of its various exemptions and loopholes, particularly those pertaining to LCMs. Crimes with AWs began to decline shortly after the ban's passage, likely in part because of the interest of collectors and speculators in these weapons, which helped to drive their prices higher through the end of the 1990s (thus making them less accessible and affordable to criminal users). Criminal use of other semiautomatics equipped with LCMs, however, appeared to climb or remain steady through the late 1990s and into the early 2000s, adjusting for overall trends in gun crime (Koper, 2004, 2013). Available evidence suggests that criminal LCM use eventually declined below pre-ban levels but only near the ban's expiration in 2004 (see especially Koper, 2013). As noted, crimes with LCM firearms have since increased. These trends are important to assessing the magnitude and timing of any impact that the federal ban may have had on the more specific problem of mass shootings.

Since the ban's expiration, several researchers studying mass shooting trends have examined variations in these incidents across the pre-ban, ban, and post-ban years. Fox and DeLateur (2014, pp. 324–327), for example, claimed that the federal ban had little impact on overall trends in firearm mass murder incidents (4+ killed) or victims based on Supplemental Homicides Report data from 1976 through 2011. Their data show that incidents and victims per month both increased by 4% to 5% during the ban years and then increased by larger amounts (14% and 21%, respectively) after the ban. Time series results suggested that both incidents and victims per month were lower during the ban years after accounting for general time trends, but neither the ban nor post-ban changes were statistically significant.

Similarly, Webster, McCourt, Crifasi, and Booty, in their state-level panel study (2020, this issue), suggested that the rate of mass murder incidents and victims did not change significantly during the ban years in comparison with their averages across the pre-ban (1984–1994) and post-ban (2005–2017) periods after controlling for state gun laws, time trends, state-level fixed effects, and various social factors. The results of their analyses, however, also show upward post-ban trends in the mass murder victim rate and the average number of victims killed per incident that accelerated dramatically

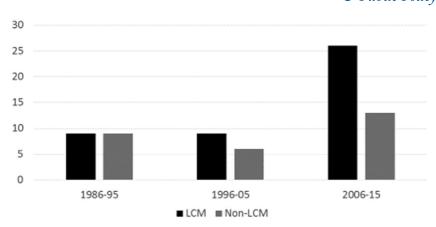


FIGURE 1 Gun massacres (6+ killed) by weapon type, 1986–2015 *Source*. Data taken from Klarevas (2016)

after 2014. Changes in offender motivations and behaviors seem to be driving this trend (Lankford & Silver, 2020), but the increasing availability of LCM weapons may also be a facilitator.

In contrast, others have argued that the federal ban reduced deaths and injuries from public mass shootings more specifically, citing reductions in both the occurrence of these events and the victims per incident average during this time (Blau et al., 2016; Cannon, 2018; DiMaggio et al., 2018; Gius, 2015; Lemieux, 2014; Phillips, 2017). Setting aside potential concerns about the completeness of these samples, the most sophisticated of these studies was conducted by Gius (2015), who examined the effects of the federal ban, as well as those of state AW–LCM bans, on deaths and injuries from public mass shootings (4+ killed) using a state-level panel analysis for the years of 1982–2011. Controlling for state-level demographics, population density, income, unemployment, prison population, and fixed effects for states and years, Gius's results suggest the federal ban reduced public mass shooting deaths and injuries by 66% and 82%, respectively. Gius, however, did not specifically examine the effects of the federal ban on mass shootings committed with AWs and other LCM semiautomatics.

A closer look at Gius's (2015) mass shooting data, which were taken from the *Mother Jones* collection of public shootings, yields a more nuanced picture. Compared with the pre-ban years, cases involving the use of an LCM firearm increased during the ban years, whereas the overall rate of cases held steady.²³ Both LCM and non-LCM cases then increased during the post-ban years. Hence, Gius's estimates seem to reflect a general post-ban increase in the rate and severity of public mass shootings as measured in the *Mother Jones* data and perhaps a drop in victims per incident during the ban years that was unrelated to changes in the use of LCM firearms.²⁴

A comparable pattern also emerges from the work of Klarevas (2016), who found that "gun massacres" resulting in six or more fatalities declined in rate and severity (i.e., victim counts) during the federal ban (also see Klarevas, Conner, & Hemenway, 2019). This pattern is consistent with the notion that a reduction in AW and LCM use might have reduced the deadliest mass shootings. Klarevas stated that massacres specifically involving LCM firearms declined by one third during the ban (2016, p. 350) before rising substantially after its expiration. The overall incidence of these gun massacres, however, also declined by 37% during the ban years (2016, p. 242), which suggests the decline in LCM cases was proportional to a more general reduction in non-LCM cases and likely independent of the federal ban. A similar pattern can be seen in more detailed figures that Klarevas reported for the periods of 1986–1995, 1996–2005, and 2006–2015, which roughly approximate the decades before, during, and after the federal ban (2016, p. 219). As shown in Figure 1, massacres involving LCM firearms were

stable from the first to the second period (9 for each period, although AW cases declined) and then nearly tripled during the third period. Cases not involving LCMs declined by one third from the first to the second period and then more than doubled during the next decade.²⁵

Overall, therefore, it seems that mass shootings with LCM firearms remained steady during the ban years, relative to pre-ban levels, or declined in proportion to trends in mass shootings more generally. Reductions observed during the ban years for some categories of mass shootings seem more likely to have been attributable to other factors, a conclusion that is consistent with other research on the wider effects of the federal ban. The law's significant exemptions ensured that its full effects would occur only gradually over time, and those effects were still unfolding at the time it expired (Koper, 2004, 2013). Nonetheless, these mass shooting studies have also underscored the federal ban's preventive value in capping and eventually reducing the supply of AWs and LCMs. What is arguably most notable in the preceding studies is the rise in mass shootings with LCM weapons that has occurred since the end of the federal ban and its correspondence with increasingly lethal and injurious incidents. This rise in LCM use would arguably have not happened, or at least not to the same degree, had Congress extended the ban in 2004. Considering that mass shootings with high-capacity semiautomatics are considerably more lethal and injurious than other mass shootings, it is reasonable to argue that the federal ban could have prevented some of the recent increase in persons killed and injured in mass shootings had it remained in place.²⁶ This is a more subtle and nuanced policy argument, but one that is central to understanding the value of the previous federal ban and any reconstituted version of that law that may be considered or implemented in the future.

3.2 | State bans on assault weapons and large-capacity magazines

In addition to the expired federal ban, several states have also made efforts to restrict AWs and/or LCMs. Currently, nine states have LCM bans, and all but two of these states have AW restrictions that were passed contemporaneously with or before the LCM restrictions. Table 3 provides an overview of these laws with primary emphasis on their LCM provisions. As shown, there are important differences between these state laws, and there have been significant changes in specific state laws over time. For example, some states began with only AW restrictions and later expanded their laws to cover LCMs. The LCM provisions also differ and have changed over time with respect to magazine capacity limits and whether pre-law LCMs are grandfathered (and whether grandfathered LCMs require registration). The latter issue may be particularly consequential as LCM owners in states without grandfathering provisions must discard or relinquish their LCMs, potentially making those laws more effective and their impacts more rapid.²⁷ Also note that some important changes to LCM laws have only recently taken effect.

State-level AW and LCM restrictions have potential strengths and weaknesses relative to the prior federal ban. A weakness is that the impacts of state regulations can be offset to some degree by the inflow of prohibited weaponry from nonrestrictive states.²⁸ On the other hand, some state AW–LCM laws could potentially have larger and more rapid effects than did the federal ban depending on their specifics with regard to whether they allow continued possession and/or transfer of pre-law AWs and LCMs. To my knowledge, there has been little-to-no study of the implementation of these state laws (including aspects of enforcement and punishment) or their impacts on the availability and criminal use of LCM firearms.²⁹ A few studies, however, have examined the association of state-level AW–LCM laws with gun violence and other crimes. In those studies that have examined gun homicides and other shootings (the crimes that are logically most likely to be affected by LCM bans), evidence has been mixed. Although states with AW and LCM laws tend to have lower gun murder rates, this association is not statistically significant when controlling for other social and policy factors

TABLE 3 State restrictions on large-capacity magazines

| State and Year of Initial | Magazine Capacity | Grandfathering of | Assault Weapon |
|---------------------------|----------------------------------|---|----------------|
| Implementation | Limit | Pre-Law LCMs | Restrictions |
| California (2000) | 10 | Yes | Yes (1989) |
| Colorado (2013) | 15 | Yes | No |
| Connecticut (2013) | 10 | Yes (with registration) | Yes (1993) |
| Hawaii (1992) | 10 (handgun magazines) | No | Yes (1992) |
| Maryland (1994) | 20 (1994), 10 (2013) | Yes | Yes (1994) |
| Massachusetts (1998) | 10 | Yes | Yes (1998) |
| New Jersey (1990) | 15 (1990), 10 (2018) | No (some exceptions for 11–15 rounds with registration) | Yes (1990) |
| New York (2000) | 10 | No (2013) | Yes (2000) |
| Vermont (2018) | 10 (long guns), 15 (handguns) | Yes | No |

Notes. The dates for assault weapons restrictions represent the first year when any such restriction was implemented. Note that Washington, D.C., has also had LCM restrictions since 2009.

Sources. Law Center to Prevent Gun Violence (https://lawcenter.giffords.org/), Vernick and Hepburn (2003), and Klarevas et al. (2019).

(Fleegler, Lee, Monuteaux, Hemenway, & Mannix, 2013; Gius, 2014; Koper & Roth, 2001; also see Moody & Marvell, 2018). Nonetheless, it is difficult to draw definitive conclusions from these studies given the lack of evidence on the implementation and market effects of these laws and the fact that studies have not accounted for important differences in the laws across states and over time—most critically, where and when they included LCM bans and grandfathering provisions.

A growing number of studies have also examined the effects of state LCM laws on mass shootings more specifically. Most notably, Webster et al. (2020), in their state-level panel analysis of mass murders from 1984 through 2017, suggested that state LCM bans reduce mass murder incidents (4+killed) and fatalities whereas AW-specific restrictions do not. Controlling for several types of gun laws, gun availability, socioeconomic variables, time trends, and other state-level differences, Webster et al. estimated that states with LCM restrictions had ~50% fewer mass murder incidents during their study period. Effects on fatal victim counts appeared greater but more variable in statistical significance, and the laws seem to have had their clearest effects on mass murders involving a domestic relationship between the perpetrator and one or more of the victims. LCM laws also appeared to reduce more deadly mass shootings (those with more than four or five fatal victims) in some model specifications.

Along similar lines, Klarevas et al. (2019) studied the effects of LCM-specific restrictions on mass shootings resulting in six or more deaths from 1990 through 2017, distinguishing between incidents committed with and without LCM firearms. Controlling for the years of the federal ban, time trends, and state-level differences in gun availability and other social factors, they found that mass murders committed with LCM firearms were significantly less likely and produced significantly fewer total fatalities in LCM ban states. States with LCM laws also had substantially lower levels of firearm mass murders overall (for example, total deaths from these incidents were 95% lower in

LCM ban states after controlling for other covariates), although these differences were not statistically significant.

The Webster et al. (2020) and Klarevas et al. (2019) studies provide the strongest evidence to date for the efficacy of state LCM bans in reducing mass shootings. Both studies are particularly noteworthy for distinguishing between state AW and LCM restrictions. Taking the results of these studies at face value, nonetheless, it remains unclear whether effects from LCM laws vary based on differences in their provisions (such as whether they grandfather pre-law LCMs), the strength of their implementation, or how long they have been in effect.

Other aspects of the studies also leave ambiguities. The Webster et al. (2020) analysis, for instance, does not establish a direct link between LCM laws and use of LCM firearms in mass murders. Furthermore, the fact that LCM laws appear more consistently linked to domestic-related mass murders in their analysis is somewhat surprising (and perhaps indicative of some misspecification in their models) considering that LCM weapons are used more frequently in public mass shootings and seem to have their greatest potential for enhancing the lethality of public incidents (see earlier discussion and Table 2). The Klarevas et al. (2019) study makes a more direct connection between LCM restrictions and lower use of LCM firearms for a smaller subset of more severe mass murders. The rarity of these particular events (there were 69 across the 28-year period studied by Klarevas et al.), however, makes it difficult to determine conclusively whether LCM laws reduce their overall occurrence and death tolls. The effects of LCM laws on mass murder deaths may also be overestimated in these studies as they seem much larger than would be expected based on the extrapolations from incident-level analyses discussed previously (see Table 2). Finally, neither study examined the effects of LCM bans on nonfatal gunshot injuries from mass shootings.

Other state-level studies have yielded mixed evidence on how state AW–LCM laws affect mass shootings. Luca, Malhotra, and Poliquin (2019) reported that these laws are unrelated to the incidence of nondomestic mass murders, which they approximated using incidents in which at least three fatal victims were unrelated to and not romantically involved with the shooter. In contrast, the Gius (2015) study of public mass shootings (referenced above) suggests that state AW–LCM laws reduce deaths from public mass shootings by 45% while having no effect on mass shooting injuries. In a similar vein, Blau et al. (2016) found that public shooting incidents of various sorts (see Footnote 20) are lower in states with AW–LCM bans, even though it is not clear from their analysis whether this is true for public mass shootings specifically (hence, the results could reflect differences across states in the propensity of people to engage in public shootings). They also did not find evidence of AW—LCM laws reducing the use of AWs in these incidents.

Inferences from these additional studies, however, are unclear as a result of multiple problems. Besides lacking specific measurement of LCM firearm use, these studies fail to differentiate between AW and LCM laws, lumping them together into one category. Consequently, the studies do not account for which of these states had LCM restrictions and when.³³ Other idiosyncrasies in the samples, measures, methods, and findings also complicate interpretations.^{34,35}

To provide some additional but tentative insight into this issue, Table 4 examines the occurrence of mass shootings with LCM weapons in states with and without LCM restrictions in the years since the expiration of the federal ban. The tabulations are based on the Koper et al. (2018) sample of firearm mass murders with four or more killed from 2009 to 2015, the *Mother Jones* data (as of February 2019) on public mass murders with four or more killed from 2005 to January 2019, and the Klarevas et al. (2019) data on firearm mass murders with six or more killed from 2005 through 2017. Each incident in these sources was coded according to whether it occurred in a state and year in which any type of LCM restriction was in effect, regardless of grandfathering, magazine capacity limit, or AW provisions. Table 4 shows the percentages of firearm mass murder cases that involved an LCM firearm,

TABLE 4 Use of high-capacity semiautomatics in firearm mass murders in states with and without restrictions on large-capacity magazines

| Data Source and Sample | State-Years with LCM Bans: Total Cases and % With LCMs (min. estimates) | State-Years Without LCM Bans: Total Cases and % With LCMs (min. estimates) |
|--|---|---|
| Koper et al. (2018): all firearm mass murders with 4+ killed, 2009–2015 ($N = 145$) | n = 22 incidents 18% – 27% involving LCM | n = 123 incidents 12% - 17% involving LCM |
| Mother Jones (Follman et al., 2019): public firearm mass murders with 4+ killed that did not involve other crimes, 2005–Jan. 2019 (N = 56) | n = 14 incidents $36% - 50%$ involving LCM | n = 42 incidents 50% – 64% involving LCM |
| Klarevas et al. (2019): all firearm mass murders with 6+ killed, 2005–2017 (N = 47) | n = 8 incidents 50% involving LCM | n = 39 incidents 72% involving LCM |

Notes. Minimum estimated ranges of LCM use from Koper et al. (2018) and *Mother Jones* (Follman et al., 2019) sources are based on cases in which LCMs were explicitly reported (lower bound) or in which gun models were identified that are sold with LCMs (upper bound).

contrasted for LCM ban state-years and state-years without LCM restrictions. The figures from Koper et al. and *Mother Jones* are minimum estimated ranges of LCM use based on cases in which LCMs were explicitly reported (lower bound) or gun models were identified that are sold with LCMs (upper bound). No further adjustments were made for missing gun data. The Klarevas et al. numbers are based on cases in which LCM use was clearly identified by the authors. Irrespective of differences in the level of mass shootings across states (which could be affected by numerous factors), these figures provide some indication as to whether mass shootings in LCM ban states are less likely to involve firearms equipped with LCMs when they do occur.

With the caveat that the samples are small, the estimates reveal an inconsistent pattern. In the Koper et al. (2018) and *Mother Jones* samples, the estimated range of cases involving an LCM overlaps between the states with and without LCM restrictions. Using the broadest sample of firearm mass murders (Koper et al.), the estimated range for LCM cases seems somewhat higher in the LCM restriction states. In contrast, LCM use appears lower in the LCM ban states when focusing on public mass shootings (*Mother Jones*) or mass shootings with the highest fatality counts (Klarevas et al., 2019).³⁶ Hence, inferences about the effectiveness of LCM restrictions could be conditional on the types of incidents under examination.

In summary, growing evidence suggests LCM restrictions reduce mass shootings and are more potent than AW-only restrictions. Nonetheless, the evidence is not yet sufficient to draw definitive conclusions. Further research is needed on the implementation and outcomes of these laws more generally, with particular attention to how variations in their provisions and implementation affect the magnitude and timing of their impacts on criminal LCM use and gun violence. Another important consideration may be how AW-LCM laws are used in tandem with other state gun laws (e.g., gun registration laws) that could enhance their effectiveness. Such studies could inform state-level policymaking by illuminating the types of AW and LCM regulations that are most optimal for reducing deaths and injuries from the use of high-capacity semiautomatics.

3.3 | Similar weapon bans outside the United States

Outside the United States, a few other nations have also passed regulations on semiautomatic weapons and/or LCMs (Masters, 2017). Scholarly inquiry on these laws has focused primarily on Australia's semiautomatic rifle ban and buyback program that was implemented after a highly tragic and infamous mass shooting in that nation in 1996 (the Port Arthur massacre). As shown by Chapman, Alpers, and Jones (2016), Australia had 13 mass shootings (defined in their study as incidents resulting in five or more deaths) in the 18 years prior to that law and zero for at least 19 years after its passage (notwithstanding more recent incidents). This provides provocative evidence that tight restrictions on AW-type and other high-capacity semiautomatics can prevent mass shootings. Setting aside the political and practical feasibility of implementing AW and/or LCM bans with buybacks in the United States, however, conclusions about the impacts of the semiautomatic rifle ban in Australia—and its applicability to the United States—should be qualified by a few considerations. The 1996 Australian gun reforms included several additional provisions relevant to firearms licensing, registration, training, storage, and sales (Peters, 2013), all of which may have conceivably contributed to the reduction in mass shootings. Furthermore, some evidence suggests that other social factors reducing violence more generally may have also played a role in reducing mass shootings and gun violence in Australia in the years since the gun reforms (Chapman et al., 2016). The fact that Australia had strict regulation of handguns even before 1996 (Peters, 2013) also suggests that regulations focused on semiautomatic rifles, while potentially efficacious, would not likely have the same level of impact on gun violence and mass shootings in the United States.

4 | DISCUSSION AND CONCLUSION

In conclusion, despite numerous challenges to studying the issues addressed herein, this article highlights a few key points about the use, impacts, and regulation of high-capacity semiautomatic weapons as they pertain to the problem of mass shootings in the United States. LCM firearms are used in between 20% and 58% of all firearm mass murders, and they are used in a particularly high share of public mass shootings. Mass shootings perpetrated with LCM firearms result in substantially more fatalities and injuries than do attacks with other firearms, and these differences are particularly pronounced for nonfatal gunshot injuries. Quantifying the unique contribution of LCM firearms to these outcomes with greater precision, independently of or in interaction with offender and situational characteristics, will require further and more sophisticated study. Notwithstanding, extrapolations from available data imply that tighter regulation of high-capacity firearms could potentially reduce mass shooting fatalities by 11% to 15% and total fatal and nonfatal injuries from these attacks by one quarter, with larger impacts for public mass shootings. For reasons discussed, actual impacts from LCM regulation seem likely to be lower, although some aggregate-level studies raise the possibility of larger effects. Nonetheless, these figures are high enough to suggest that tighter regulation of high-capacity semiautomatic weaponry—and restriction of LCMs in particular—is one policy measure that can contribute meaningfully to reducing deaths and injuries from mass shootings. Effects may be modest and gradual, however, depending on the form of those regulations.

The federal AW–LCM ban of 1994 had important exemptions and loopholes that limited its impacts in the short run. Its expiration in 2004, however, was followed by an upswing in mass shootings with high-capacity semiautomatics that has contributed to more severe incidents with higher fatalities and injuries. Policy makers who wish to reinstate a new version of the federal ban should give careful consideration to any grandfathering provisions in future legislation. Assessing the political and practical

difficulties of registering all AWs and LCMs or establishing turn-in or buyback programs for them is beyond the scope of this article.³⁷ Policy makers should note, however, that it may take many years to attain substantial reductions in crimes committed with banned guns and/or magazines if a new law exempts the existing stock, which has likely grown considerably since the time of the original ban. Policies regarding exemptions must also explicitly address the status of imported guns and magazines.

In the meantime, further research is needed on the implementation and effects of state restrictions on AWs and LCMs (and perhaps those at the local level as well). Although some studies indicate that mass shootings are lower in states with these laws (and LCM bans in particular), more evidence is needed to show definitively that these laws reduce crimes with LCM firearms and, in turn, reduce mass shootings and other gunshot victimizations. Further research is also needed to determine whether the effectiveness of these laws varies based on their specific provisions.

The conclusions offered here are also subject to various caveats regarding the current state of data and research on mass shootings. Better data collection systems are needed to track mass shootings and document the features of these incidents, including the type of weaponry used.³⁸ There is also a need for more studies that analyze the dynamics and outcomes of attacks with different types of guns and magazines. Such studies would help to refine our understanding of how changes in the use of high-capacity semiautomatics affect the incidence and severity of mass shootings. This essay has also focused on firearm mass murders resulting in four or more deaths. As data become more widely available for tracking multiple victim shootings, studies using different definitions of mass shootings (e.g., based on total injury counts) could provide a wider perspective on how the use and regulation of LCM firearms affect mass violence. Finally, future studies will also need to further assess whether firearm restrictions, including those on AWs and LCMs, lead to substitution of other methods in attempts to inflict mass casualty events (and with what results).

In closing, restrictions on AWs and LCMs are not a complete solution for the problem of mass shootings or public mass shootings more specifically. Nonetheless, they are modest policy measures that can likely help to reduce the incidence and severity of mass shootings over time. Given the high social costs of murders and shootings, ³⁹ these laws could produce substantial savings for society even if their effects on mass shootings are modest.

ENDNOTES

- ¹ A semiautomatic weapon fires one bullet for each squeeze of the trigger. After each shot, the gun automatically loads the next round and cocks itself for the next shot, thereby permitting a faster rate of fire relative to nonautomatic firearms. Semiautomatics differ from fully automatic weapons (i.e., machine guns), which fire continuously as long as the trigger is held down. Fully automatic weapons have been illegal to own in the United States without a federal permit since 1934.
- ² The federal government's 1994 AW ban defined AWs based on having two or more of such features, as do some current state laws. In contrast, several current state laws and a new federal ban proposed (unsuccessfully) in 2013 define AWs based on a one-feature criterion.
- ³ Gun manufacturers report data on total handgun, rifle, and shotgun production to federal authorities, with handgun figures further differentiated by caliber. They are not, however, required to report any further detail on production by model, firing mechanism (semiautomatic vs. other), or magazine capacity.
- ⁴ Estimates of their use tend to be higher for different types of shootings, including mass shootings (discussed below) and gun murders of police.
- ⁵ Consistent with other research and reporting, this definition is also generally limited to cases in which the victims were killed in the course of one event that occurred in one or more locations in close proximity.
- ⁶ Researchers commonly use the FBI's Supplemental Homicide Reports (SHR) to identify homicide incidents with multiple fatalities in the United States, although some have noted substantial numbers of mass murders that do not

appear in the SHR. Furthermore, the SHR does not provide counts of additional wounded victims, nor does it provide detail on firearms used beyond basic handgun, rifle, and shotgun designations.

- ⁷ In a study of firearm mass murders from 1999 to 2013, the Congressional Research Service reported that public mass shootings produced 49% to 58% more fatalities and 8 to 17 times as many wounded victims per incident than did family and other felony-related cases (Krouse & Richardson, 2015).
- 8 For example, a firearm identified simply as a "semiautomatic handgun" or as a "semiautomatic rifle" might or might not be an LCM firearm or an AW depending on the particular model. Even when models are identified, there may be ambiguity about LCM use in the absence of specific magazine information. Some firearm models can be sold with LCMs or smaller magazines, whereas some firearms not sold with LCMs at retail can be equipped with aftermarket LCMs.
- ⁹ In some cases involving reported AW use, the firearm may only be identified generically in public accounts as an "assault rifle" or as an "assault weapon."
- Additional sources on public mass shootings have also yielded figures similar to those in Table 2. Cannon (2018) reported that AWs and other high-capacity semiautomatics were used in 65% of 79 public firearm mass murders documented by the Citizens Crime Commission of New York City from June 1984 through February 2018. This database mainly overlaps with the *Mother Jones* collection, although with some notable differences. Similarly, Lemieux (2014) found that AWs were used in 26% of 73 public mass murder incidents he studied from 1983 to 2013, and Capellan and Gomez (2018) estimated that "rifles or assault rifles" were used in approximately 23% of 206 mass murders or attempted mass murders they documented from 2000 to 2015. Both of these AW estimates are similar to that of Krouse and Richardson (2015).
- ¹¹ In other words, forcing the substitution of low-capacity weapons in these cases would likely reduce the number of victims killed in some cases, thereby reducing the number of incidents that would qualify as a mass murder.
- ¹² The FBI's active shooter data does not include details about the types of weapons used other than basic handgun, rifle, and shotgun designations. To identify cases involving semiautomatic rifles, Jager et al. (2018) supplemented the FBI data with information from court and police records as well as from news sources.
- ¹³ For older studies showing higher victim counts for mass shootings with LCM firearms or AWs more specifically, see Duwe (2007) and Koper (2004). On a related note, Anisin (2018) reported that mass shooting incidents (3+ shot) are more likely to result in mass murders (4+ killed) when offenders use AWs or multiple firearms, although it is not possible to determine the unique effect of AWs from the analysis.
- ¹⁴ Note that Table 2 includes two sources on mass public shootings that mainly overlap but not completely. I have used the study of the Citizens Crime Commission of New York City (CCCNYC; Cannon, 2018) as a complement to studies of the well-known *Mother Jones* news organization's database (Follman et al., 2019) because the CCCNYC appears to have made definitive determinations as to the use of AWs and LCM firearms for the 79 cases reported. (The cases that CCCNYC has identified as AW–LCM cases are currently listed on the organization's website for the years 1984–2012 but not for more recent years.) I have taken these designations at face value for the purposes of this review. In contrast, Dillon's (2013) analysis of the *Mother Jones* data for 1982–2012 compared 31 cases that clearly involved LCM weapons with 31 cases that either did not involve LCM use or (much more commonly) did not provide sufficient information for a clear determination about LCM use. More generally, examining public mass shootings as reported in multiple data sources to search for common patterns helps to compensate for some of the differences in event coverage and details across these sources. On a related note, Lemieux (2014) reported that use of AW-type rifles was not associated with victim counts in his examination of 73 public mass murder incidents from 1983 to 2013. He did not report specific figures and did not address use of other LCM firearms, however.
- ¹⁵ As one illustration, the Koper et al. (2018) database includes 27 cases that involved LCM firearms. Assuming these were the only LCM cases—or the only ones in which LCM use substantially affected the outcomes—we can estimate the number of deaths and injuries that could have potentially been prevented if the attackers had used non-LCM firearms. Focusing on total victims, there were 978 people killed or wounded across the sample. The LCM cases produced 13.67 killed and wounded victims on average, accounting for a total of 369 of these victims. If the LCM attacks had been conducted with non-LCM firearms, we can estimate that they may have only resulted in 5.16 victims on average (based on the observed average for non-LCM/unknown cases) producing a total of 139 victims. This would have reduced gunshot victims by 230 (i.e., 369–139), amounting to an overall reduction of 24% across the full sample (230/978 × 100).

- ¹⁶ In the Everytown (2018) sample, the potential reduction in deaths rises to 19% if the Las Vegas shooting is included and the potential reduction in total victims rises to 45%.
- ¹⁷ The calculations for both databases count multiple gun non-LCM cases as those in which the firearms used were clearly not LCM firearms or were not known to be such. The LCM firearm cases include instances of both single and multiple gun use in which offenders clearly used an LCM(s) or LCM compatible firearm(s). Note that some multiple gun cases also involve multiple shooters, although these are rare.
- ¹⁸ The non-LCM multiple gun cases involved two to four firearms, whereas the LCM cases ranged from one to four. Even after excluding LCM cases with more than two firearms, the average number of shots fired for LCM cases (54) was roughly double that in the non-LCM multiple gun cases.
- ¹⁹More extended discussion of some of the issues surrounding the use of multiple guns and/or magazines in mass shootings are provided by Kleck (2016) and Klarevas (2016). Kleck (2016) argued that LCM restrictions would have no appreciable impact on the outcomes of mass shootings because shooters with multiple non-LCM firearms or magazines can quickly and easily switch guns or change magazines, particularly during the course of attacks that take place over the course of several minutes or longer periods. The counter argument, noted above, is that firearm and magazine changes create pauses in shooting that give potential victims and bystanders additional seconds to escape, take cover, or possibly overtake and incapacitate the shooter. Besides the data presented above in reference to cases with multiple guns, some have also offered more detailed arguments surrounding the use of multiple non-LCM magazines. Drawing on tests and reports from shooting experts, for example, Klarevas (2016, pp. 211-212) estimated that using a semiautomatic with a 30-round LCM doubles an average shooter's firing rate and shooting time per minute relative to using a semiautomatic with multiple 10-round magazines (LCM effects are much greater when compared with using a 6-shot revolver). In this scenario, a shooter trying to fire continuously with 10round magazines would have to spend 40 seconds reloading every minute in contrast to only 20 seconds for a shooter with 30-round magazines. We can expect that these differences would be less pronounced for offenders using smaller LCMs (e.g., in the 11–20-round range), but these estimates also assume that attackers have the time, skill, and poise to reload without problems (like fumbling for or dropping a gun or magazine). Besides giving shooters the ability to wound more people more rapidly, Klarevas also emphasized that LCM use makes them more invulnerable to counterattack as people at the scene must flee or take cover when faced with a sustained barrage of gunfire. This perhaps explains why mass shooters with LCMs have had time to make magazine changes when needed in several prominently reported cases and have only rarely been subdued by bystanders (facts highlighted by Kleck). A more insightful analysis in this regard might be to examine these issues in the context of mass shootings and near mass shootings perpetrated by offenders with non-LCM firearms and magazines (e.g., looking at issues such as the number of shots they fired, the number of gun/magazine changes they made, how often they were subdued by bystanders, and the like). Finally, this debate also highlights the need for more in-depth studies of the dynamics of mass shootings that take into account how gunfire unfolds over the course of these incidents. Kleck noted that mass shootings often occur over many minutes and argued that the average rates of gunfire in LCM cases could readily be achieved with non-LCM weapons. The average rate of gunfire as calculated from the total length of an incident, however, will not always be indicative of how the event unfolded or the peak rate of gunfire that occurred. Some events involve spurts of gunfire followed by pauses as offenders move through a location, search for additional victims, and/or reload (e.g., see the detailed descriptions of selected cases provided by Klarevas). As one example, the Virginia Tech massacre perpetrated by Seung-Hui Cho in April 2007 involved approximately 174 shots that were fired over the course of 156 minutes (Kleck, 2016, pp. 34, 43). This suggests an average firing rate of one round every 54 seconds, which is a misleading characterization of how the gunfire occurred (e.g., see Klarevas, 2016, pp. 94-95). Analyzing the details and dynamics of mass shootings in more systematic depth (e.g., numbers of shots fired continuously or in spurts and with what guns and magazines) would be useful in more precisely understanding how LCM firearms affect the outcomes of these events.
- 20 The Blau et al. (2016) findings should be interpreted cautiously given certain aspects of the data. Drawing from a few public sources, the sample appears to have consisted of public mass shootings resulting in four or more deaths from 1982 to 2015, public spree shootings resulting in two or more fatalities from 1982 to 2015, and active shooter incidents as identified by the FBI, which have no victim count criteria, from 2000 to 2013. This mixing of data sources introduces inconsistent measurement across the timeframe of the study. In addition, identification of LCM firearms and AWs is not discussed in any detail, which is potentially problematic, especially considering that the FBI active shooter data do not identify firearm models or even which guns were semiautomatics.

- ²¹ This conclusion is also supported indirectly by the wider body of research that has attempted to determine the impacts of weaponry on the outcomes of violent events (i.e., weapon "instrumentality") while controlling in different ways (albeit, imperfectly) for characteristics of the situations and actors involved. Most of this research has focused on the effects of guns relative to the use of other or no weapons (e.g., Alba & Messner, 1995; Felson & Messner, 1996; Wells & Horney, 2002; Zimring, 1968), although a few studies (besides those noted in text) have used such methods to contrast attacks involving different types of firearms (Libby & Corzine, 2007; Libby & Wright, 2009; Zimring, 1972). Collectively, these studies affirm the notion that attacks with more lethal weapons are more likely to result in deaths and serious injuries. Hence, even if more lethally minded offenders choose more dangerous weaponry, the evidence suggests overall that the chosen weaponry has an independent effect in facilitating the realization of the offender's intentions.
- 222 Trends in criminal use of AWs and LCMs were measured using several national and local data sources on guns recovered by police, with a focus on changes in AWs and LCM weapons as a share of gun recoveries. Assessing trends in LCM use was more difficult because there is no national data source on crimes with LCMs, and local police agencies do not typically record magazine capacity in their gun recovery databases. It was possible, nonetheless, to examine LCM use in a small number of geographically diverse jurisdictions, which revealed some common trends.
- ²³ There were at least seven LCM incidents from 1982 through 1994 and at least eight from 1995 through 2004 (including other cases that likely involved LCMs would magnify this increase). Conclusions about these trends are contingent on the completeness and reliability of the data over time, which some researchers have criticized (e.g., see Duwe, 2020). The point here, nonetheless, is to illuminate the patterns in these data as analyzed by Gius (2015).
- ²⁴ Similar patterns can be discerned from the CCCNYC's listing of public mass shootings with 4+ killed (Cannon, 2018). Their collection shows 10 AW–LCM incidents in the decade before the ban and 11 during the decade of the ban (cases without AWs or LCMs declined during this time). After the ban (September 2004–February 2018), both LCM and non-LCM cases increased in rate and victim counts (the latter increase was most pronounced for LCM cases). Finally, Blau et al. (2016) also reported that public shootings of various sorts (see Footnote 20) were lower during the federal ban, but they did not find lower levels of AW use in these incidents.
- ²⁵ Interestingly, deaths per incident in LCM cases also declined during the ban in Klarevas's (2016, p. 350) data (from 9.1 before the ban, to 7.7 during the ban, to 9.2 after), a pattern that is also apparent in the CCCNYC report on public mass murders with LCM firearms (see Cannon, 2018). These changes also seem more likely to reflect a general secular trend than an effect from the federal law, unless perhaps they were caused by a decline in the use of specific LCM models, like AWs, that have particularly large magazines. Klarevas reported a decline in AW cases during this time, but there is not sufficient detail presented in either source to examine this carefully.
- ²⁶ For further discussion of the ban's potential to reduce shootings more generally, see Koper (2013) and Koper et al. (2019).
- ²⁷ The constitutionality of this requirement is currently being litigated in a federal court challenge to a new California law that would end the state's prior LCM grandfathering exemption. This type of restriction, however, has been upheld in prior federal court cases involving other state and local LCM laws.
- ²⁸ States with more restrictive gun laws, however, have lower levels of gun availability and gun homicide in general (e.g., Fleegler, Lee, Monuteaux, Hemenway, & Mannix, 2013; Miller, Azrael, & Hemenway, 2002; Siegel, Ross, & King, 2013). Some studies also suggest that state-level restrictions can be effective in reducing crimes with particular categories of firearms (Vernick, Webster, & Hepburn, 1999; also see Loftin, McDowall, Wiersema, & Cottey, 1991).
- ²⁹ A few fragmentary accounts include a media report that crimes with LCM firearms continued rising in Baltimore for at least the first few years after Maryland's reduction of its LCM capacity limit from 20 to 10 rounds in 2013 (Freskos, 2017). In contrast, a study of guns recovered by police in multiple jurisdictions around the country found some indications that LCM firearms are less common in jurisdictions with LCM laws (Koper et al., 2018).
- ³⁰ This discussion is based on a pre-publication draft of the Webster et al. (2020) study.
- ³¹ It is not clear from their data, however, how often the domestic and nondomestic incidents occurred in public or the types of venues in which they occurred.
- ³² The Klarevas et al. (2019) results may have also been affected by the omission of other gun laws that might affect mass shootings (see Webster et al., 2020; also see Reeping et al., 2019).

- ³³ On a related note, it is not clear whether Luca et al. (2019) and Blau et al. (2016) included Colorado as a ban state after it enacted LCM-only restrictions in 2013.
- ³⁴ Besides issues noted in text, Luca et al. (2019) may not have used an appropriate functional form for their cited models (see discussion in Webster et al., 2020). Gius's (2015) finding that AW–LCM laws reduce mass shooting deaths but not injuries is at odds with data showing that LCM use is more strongly associated with injuries when examining incident-level outcomes (see Table 2). In addition, with the exception of concealed carry laws, Gius did not account for other state gun laws that appear related to the level of mass shootings more generally (Reeping et al., 2019; Towers, Gomez-Lievano, Khan, Mubayi, & Castillo-Chavez, 2015; Webster et al., 2020; but also see Lin, Fei, Barzman, & Hossain, 2018 with regard to public shootings). See Footnote 20 for additional caveats regarding Blau et al. (2016). Finally, these studies did not include measures of overall gun availability, which has been linked to mass shootings in some studies (Reaping et al., 2019; Towers et al., 2015; but see Klarevas et al., 2019; Webster et al., 2020) and is generally lower in LCM ban states (which tend to have higher numbers of other gun restrictions as well).
- 35 A CNN news story (Petula, 2017) referenced another analysis reportedly showing that state LCM regulations reduce mass shootings, but this study has not been published or publicly disseminated to my knowledge.
- ³⁶ Given the limits of these data, I have not undertaken extensive comparisons across LCM ban states or examined changes over time. One notable aspect of the data, however, is that most of the mass murders in the LCM ban states (and many of the cases involving LCM use) occurred in California. Accordingly, future studies of state LCM bans might give careful consideration to how patterns in California compare with those of other LCM ban states. It is also noteworthy that there were no confirmed LCM cases in these sources in states that had LCM restrictions with conditional or no grandfathering of pre-ban LCMs. There was one case that involved an LCM-compatible firearm (with no further information on the magazine type) in Washington, DC, shortly after the city passed its own LCM ban without grandfathering.
- ³⁷ See Klarevas (2016, pp. 257–258) for a discussion of implementation and cost considerations surrounding a national LCM ban and turn-in program.
- ³⁸ More generally, there is a need for better data on crimes with guns having LCMs. Policymakers should thus encourage police agencies to record information about magazines recovered with crime guns. Likewise, ATF should consider integrating ammunition magazine data into its national gun tracing system and encourage reporting of magazine data by police agencies that trace firearms.
- ³⁹ Cost of crime estimates suggest the full societal costs of each homicide in the United States (including medical, criminal justice, and other government and private costs, both tangible and intangible) may be as high as \$5 billion to \$11.6 billion as measured in 2007 dollars (Heaton, 2010). The full social costs of gunshot victimizations were estimated to be as high as \$1 million in 2000 (Cook & Ludwig, 2000). Also see Webster (2017) for further discussion of the consequences and costs associated with mass shootings in particular.

ORCID

Christopher S. Koper (b) https://orcid.org/0000-0003-4793-3628

REFERENCES

- Alba, R. D., & Messner, S. F. (1995). "Point blank" against itself: Evidence and inference about guns, crime, and gun control. *Journal of Quantitative Criminology*, 11(4), 391–410.
- Anisin, A. (2018). A configurational analysis of 44 US mass shootings: 1975–2015. *International Journal of Comparative and Applied Criminal Justice*, 42(1), 55–73.
- Blau, B. M., Gorry, D. H., & Wade, C. (2016). Guns, laws, and public shootings in the United States. *Applied Economics*, 48(49), 4732–4746.
- Cannon, A. (2018). Mayhem multiplied: Mass shooters and assault weapons. New York: Citizens Crime Commission of New York City.

- Capellan, J. A., & Gomez, S. P. (2018). Change and stability in offenders, behaviors, and incident-level characteristics of mass public shootings in the United States, 1984–2015. *Journal of Investigative Psychology and Offender Profiling*, 15(1), 51–72.
- Chapman, S., Alpers, P., & Jones, M. (2016). Association between gun law reforms and intentional deaths in Australia, 1979–2013. JAMA, 316(3), 291–299.
- Cook, P. J., & Ludwig, J. (1996). Guns in America: Results of a comprehensive national survey on firearms ownership and use. Washington: Police Foundation.
- Cook, P. J., & Ludwig, J. (2000). Gun violence: The real costs. New York: Oxford University Press.
- Dillon, L. (2013). Mass shootings in the United States: An exploratory study of the trends from 1982–2012 (Master's thesis). Fairfax: Department of Criminology, Law and Society, George Mason University.
- DiMaggio, C., Avraham, J., Berry, C., Bukur, M., Feldman, J., Klein, M., ... Frangos, S. (2018). Changes in US mass shooting deaths associated with the 1994–2004 federal assault weapons ban: Analysis of open-source data. *Journal* of Trauma and Acute Care Surgery, 86(1), 11–17.
- Duwe, G. (2007). Mass murder in the United States: A history. Jefferson: McFarland.
- Duwe, G. (2020). Patterns and prevalence of lethal mass violence. Criminology & Public Policy, 19(1), 17-35.
- Everytown for Gun Safety. (2018). Mass shootings in the United States, 2009-2017. New York: Author.
- Felson, R. B., & Messner, S. F. (1996). To kill or not to kill? Lethal outcomes in injurious attacks. *Criminology*, 34, 519–545.
- Fleegler, E. W., Lee, L. K., Monuteaux, M. C., Hemenway, D., & Mannix, R. (2013). Firearm legislation and firearm-related fatalities in the United States. *JAMA Internal Medicine*, 173(9), 732–740.
- Follman, M., Aronsen, G., & Pan, D. (2019). U.S. mass shootings, 1982–2019: Data from Mother Jones' investigation. Retrieved from https://www.motherjones.com/politics/2012/12/mass-shootings-mother-jones-full-data/
- Fowler, K. A., Dahlberg, L. L., Haileyesus, T., & Annest, J. L. (2015). Firearm injuries in the United States. *Preventive Medicine*, 79, 5–14.
- Fox, J. A., & DeLateur, M. J. (2014). Weapons of mass (murder) destruction. New England Journal on Criminal and Civil Confinement, 40, 313–343.
- Freskos, B. (2017, April 1). Baltimore police are recovering more guns loaded with high-capacity magazines, despite ban on sales. The Trace.org.
- Gius, M. (2014). An examination of the effects of concealed weapons laws and assault weapons bans on state-level murder rates. Applied Economics Letters, 21(4), 265–267.
- Gius, M. (2015). The impact of state and federal assault weapons bans on public mass shootings. Applied Economics Letters, 22(4), 281–284.
- Heaton, P. (2010). *Hidden in plain sight: What cost-of-crime research can tell us about investing in police*. Santa Monica: RAND Corporation.
- Jager, E., Goralnick, E., McCarty, J. C., Hashmi, Z. G., Jarman, M. P., & Haider, A. H. (2018). Lethality of civilian active shooter incidents with and without semiautomatic rifles in the United States. JAMA, 320(10), 1034–1035.
- Klarevas, L. (2016). Rampage nation: Securing America from mass shootings. Amherst: Prometheus Books.
- Klarevas, L., Conner, A., & Hemenway, D. (2019). The effect of large-capacity magazine bans on high-fatality mass shootings, 1990–2017. American Journal of Public Health, Advance online publication. https://doi.org/ 10.2105/AJPH.2019.305311
- Kleck, G. (2016). Large-capacity magazines and the casualty counts in mass shootings: The plausibility of linkages. *Justice Research and Policy*, 17(1), 28–47.
- Koper, C. S. (2004). An updated assessment of the Federal Assault Weapons Ban: Impacts on gun markets and gun violence, 1994–2003 (Report to the National In stitute of Justice). Philadelphia: Jerry Lee Center of Criminology, University of Pennsylvania.
- Koper, C. S. (2013). America's experience with the federal assault weapons ban, 1994–2004: Key findings and implications. In D. W. Webster & J. S. Vernick (Eds.), *Reducing gun violence in America: Informing policy with evidence and analysis* (pp. 157–171). Baltimore: Johns Hopkins University Press.
- Koper, C. S., Johnson, W. D., Nichols, J. L., Ayers, A., & Mullins, N. (2018). Criminal use of assault weapons and high capacity semiautomatic firearms: An updated examination of local and national sources. *Journal of Urban Health*, 95(3), 313–321.
- Koper, C. S., Johnson, W. D., Stesin, K., & Egge, J. (2019). Gunshot victimisations resulting from high volume gunfire incidents in Minneapolis: Findings and policy implications. *Injury Prevention*, 25, i9–i11.

- Koper, C. S., & Roth, J. A. (2001). The impact of the 1994 Federal Assault Weapon Ban on gun violence outcomes: An assessment of multiple outcome measures and some lessons for policy evaluation. *Journal of Quantitative Criminology*, 17, 33–74.
- Koper, C. S., & Roth, J. A. (2002). The impact of the 1994 Federal Assault Weapon Ban on gun markets: An assessment of the short-term primary and secondary market effects. *Journal of Quantitative Criminology*, 18, 239–266.
- Krouse, W. J., & Richardson, D. J. (2015). Mass murder with firearms: Incidents and victims, 1999–2013.
 Washington: Congressional Research Service, Library of Congress. https://digital.library.unt.edu/ark:/67531/metadc743624/
- Lankford, A., & Silver, J. (2020). Why have public mass shootings become more deadly? Assessing how perpetrators' motives and methods have changed over time. *Criminology & Public Policy*, 19(1), 37–60.
- Lee, J. (Ed.). (2014). Gun digest 2015. Iola: Krause.
- Lemieux, F. (2014). Effect of gun culture and firearm laws on gun violence and mass shootings in the United States: A multi-level quantitative analysis. *International Journal of Criminal Justice Sciences*, 9(1), 74–93.
- Libby, N. E., & Corzine, J. (2007). Lethal weapons: Effects of firearm types on the outcome of violent encounters. *Justice Research and Policy*, 9(2), 113–137.
- Libby, N. E., & Wright, J. D. (2009). Influence of automatic firearms on the presence of multiple victims of violence. *Journal of Contemporary Criminal Justice*, 25(1), 89–105.
- Lin, P., Fei, L., Barzman, D., & Hossain, M. (2018). What have we learned from the time trend of mass shootings in the U.S.? *PLoS ONE*, 13(10), e0204722. https://doi.org/10.1371/journal.pone.0204722
- Loftin, C., McDowall, D., Wiersema, B., & Cottey, T. J. (1991). Effects of restrictive licensing of handguns on homicide and suicide in the District of Columbia. *The New England Journal of Medicine*, 325(23), 1615–1620.
- Luca, M., Malhotra, D., & Poliquin, C. (2019). The impact of mass shootings on gun policy. Working paper 16–126.
 Cambridge: Harvard Business School, Harvard University.
- Masters, J. (2017). U.S. gun policy: Global comparisons. New York: Council on Foreign Relations. https://www.cfr.org/backgrounder/us-gun-policy-global-comparisons
- McGonigal, M. D., Cole, J., Schwab, C. W., Kauder, D. R., Rotondo, M. F., & Angood, P. B. (1993). Urban firearm deaths: A five-year perspective. *The Journal of Trauma*, *35*, 532–537.
- Miller, M., Azrael, D., & Hemenway, D. (2002). Rates of household firearm ownership and homicide across U.S. regions and states, 1988–1997. *American Journal of Public Health*, 92(12), 1988–1993.
- Moody, C. E., & Marvell, T. B. (2018). Clustering and standard error bias in fixed effects panel data regressions. *Journal of Quantitative Criminology*, Advance online publication. https://doi.org/10.1007/s10940-018-9383-z
- Peters, R. (2013). Rational firearm regulation: Evidence-based gun laws in Australia. In D. W. Webster & J. S. Vernick (Eds.), Reducing gun violence in America: Informing policy with evidence and analysis (pp. 195–204). Baltimore: Johns Hopkins University Press.
- Petula, S. (2017, October 1). Here is 1 correlation between state gun laws and mass shootings. Retrieved from CNN.com Phillips, B. (2017, November 7). Did banning assault weapons affect mass shootings? *Political Violence* @ a Glance, Denver Dialogues. Retrieved from http://politicalviolenceataglance.org/2017/11/07/did-banning-assault-weapons-affect-mass-shootings/
- Reeping, P. M., Cerda, M., Kalesan, B., Wiebe, D. J., Galeo, S., & Branas, C. C. (2019). State gun laws, gun ownership, and mass shootings in the US: Cross sectional time series. *BMJ*, 364, 1542. https://doi.org/10.1136/bmj.1542
- Reedy, D. C., & Koper, C. S. (2003). Impact of handgun types on gun assault outcomes: A comparison of gun assaults involving semiautomatic pistols and revolvers. *Injury Prevention*, *9*, 151–155.
- Richmond, T. S., Branas, C. C., Cheney, R. A., & Schwab, C. W. (2004). The case for enhanced data collection of gun type. *Journal of Trauma*, *57*, 1356–1360.
- Roth, J. A., & Koper, C. S. (1997). *Impact evaluation of the Public Safety and Recreational Firearms Use Protection Act of 1994* (Report to the National In stitute of Justice). Washington: The Urban Institute.
- Roth, J. A., & Koper, C. S. (1999). Impacts of the 1994 Assault Weapons Ban: 1994–1996 (Research-in-Brief). Washington: U.S. Department of Justice.
- Siegel, M., Ross, C. S., & King, C. III (2013). The relationship between gun ownership and firearm homicide rates in the United States, 1981–2010. American Journal of Public Health, 103(11), 2098–2105.
- Towers, S., Gomez-Lievano, A., Khan, M., Mubayi, A., & Castillo-Chavez, C. (2015). Contagion in mass killings and school shootings. PLoS ONE, 10(7), e0117259. https://doi.org/10.1371/journal.pone.0117259
- Violence Policy Center. (2011). The militarization of the U.S. civilian firearms market. Washington: Author.

- Vernick, J. S., Webster, D. W., & Hepburn, L. M. (1999). Effects of Maryland's law banning Saturday night special handguns on crime guns. *Injury Prevention*, 5, 259–263.
- Webster, D. W. (2017). The true effect of mass shootings on Americans. *Annals of Internal Medicine*, *17*(166), 749–750. Webster, D. W., McCourt, A. D., Crifasi, C. K., Booty, M. D., & Stuart, E. A. (2020). Evidence concerning the regulation of firearms design, sale, and carrying on fatal mass shootings in the United States. *Criminology & Public Policy*, *19*(1), 171–212.
- Wells, W., & Horney, J. (2002). Weapon effects and individual intent to do harm: Influences on the escalation of violence. Criminology, 40(2), 265–296. https://doi.org/10.1111/j.1745-9125.2002.tb00957.x
- Zimring, F. E. (1968). Is gun control likely to reduce violent killings? *University of Chicago Law Review*, 35, 721–737. Zimring, F. E. (1972). The medium is the message: Firearm caliber as a determinant of death from assault. *The Journal of Legal Studies*, 1, 97–123.

AUTHOR BIOGRAPHY

Christopher S. Koper is an associate professor in the Department of Criminology, Law and Society at George Mason University and the principal fellow of Mason's Center for Evidence-Based Crime Policy. He specializes in issues related to policing, firearms policy, program evaluation, and evidence-based crime policy. His work on gun crime and gun policy includes multiple studies of the 1994 federal assault weapons ban conducted for the U.S. Department of Justice and Congress.

How to cite this article: Koper CS. Assessing the potential to reduce deaths and injuries from mass shootings through restrictions on assault weapons and other high-capacity semiautomatic firearms. *Criminol Public Policy*. 2020;19:147–170. https://doi.org/10.1111/1745-9133.12485

EXHIBIT 2

GUNSHOT WOUNDS

Practical Aspects of Firearms, Ballistics, and Forensic Techniques

SECOND EDITION



Vincent J.M. Di Maio

Gunshot Wounds

Practical Aspects of Firearms, Ballistics, and Forensic Techniques

Second Edition

by
Vincent J. M. Di Maio, M.D.





Figure 1.9 Beretta with tip-up barrel.

frame, the slide, barrel, and internal components are steel. Since then, a number of other pistols with polymer frames have been introduced.

Rifles

A rifle is a firearm with a rifled barrel which is designed to be fired from the shoulder. Barrel length is immaterial in classifying a firearm as a rifle. However, U.S. Federal law requires rifles to have a minimum barrel length of 16 inches. The types of rifles commonly encountered are single-shot, leveraction, bolt-action, pump-action, and auto-loading. A single-shot rifle has one firing chamber integral with the barrel which has to be manually loaded each time the weapon is fired. A lever-action rifle has a lever beneath the grip which is used to open the rifle action, to extract the cartridge case, and, in closing the action, to insert a fresh cartridge in the firing chamber and to cock the gun.

In a bolt-action rifle, a handle projects from a bolt. Pulling back and pushing forward on this projection causes the bolt to extract and eject a cartridge case and then to insert a new cartridge while cocking the gun. The slide-action rifle uses the manual movement of a slide under and parallel to the barrel to open the action, extract and eject a cartridge, load a fresh cartridge, and cock the weapon.

In auto-loading or semi-automatic rifles, the weapon fires, extracts, ejects, reloads, and cocks with each pull of the trigger using the force of gas

pressure or recoil to operate the action. After each shot the trigger must be released and then pulled again to repeat the cycle. Auto-loading rifles are commonly but incorrectly called "automatic rifles." A fully automatic rifle is one that, on pulling the trigger and firing the weapon, utilizes the force of gas pressure or recoil to eject the fired case, load the next round, fire it, and then eject it. This cycle is repeated until all the ammunition is used or the trigger is released. Automatic weapons are generally used only by military and police organizations. While it is possible to alter some semi-automatic rifles to deliver automatic fire, unlike the impression given by the media and some politicians, this is not a simple procedure. In fact, such conversions are uncommon. In the United States, deaths due to full-automatic weapons (rifles and submachine guns) are extremely rare. The author has seen only three such deaths in the past 30 years, all of which occurred in the same incident and involved illegal drug dealings and an alleged professional killer. Weapons ffired in the full-automatic mode are very difficult to control. In most instances, while the first shot may be on target, subsequent rounds fly high and to the right.

Assault Rifles

The term "assault rifle" refers to a rifle that is: (1) auto-loading, (2) has a large-capacity (20 rounds or more) detachable magazine, (3) is capable of full-automatic fire, and (4) fires an intermediate rifle cartridge. This term has been corrupted by the media and some politicians to include most self-loading weapons. They have also coined the meaningless term "assault pistol" which appears to refer to large, ugly-looking pistols having large-capacity magazines (20 to 40 rounds) or to semi-automatic versions of submachine guns such as the Uzi (Figure 1.10). "Assault pistols" are with rare exception cumbersome, difficult to shoot, inaccurate, and cheaply made. They are usually acquired by individuals with little knowledge of firearms who associate the effectiveness of a weapon with "ugliness."

Weapons that fire pistol ammunition are not by definition assault rifles, nor are self-loading rifles with fixed magazines that were never intended for full-automatic fire. The best example of the latter weapon is the SKS-45 (Figure 1.11). While this weapon is an auto-loader and chambered for an intermediate-power cartridge, it has a fixed ten-round magazine and was never intended for full-automatic fire. The weapon may be altered to accept a 30-round magazine, however.

There is a group of weapons that might be considered "assault rifles" if one eliminates the criteria of full-automatic capability. This would include weapons such as the AKS-47, MAK-90 and Colt AR-15 Sporter and their variants (Figure 1.12). These are semi-automatic versions of the AK-47 and M-16 assault rifles.



Figure 1.10 Intratec Tec 9 often referred to as an "assault pistol," is just a cumbersome, ugly-looking pistol with a large magazine capacity.

One of the common fallacies about assault rifles is that the wounds they produce are more severe than those due to ordinary centerfire rifles. In fact, the wounds are less severe than those produced by virtually all hunting rifles even the Winchester M-94 (introduced in 1894) and its cartridge the .30–30 (introduced in 1895). As we shall see in Chapters 3 and 7, in dealing with rifles, the severity of the wound is determined by the amount of kinetic energy lost by a bullet in the body. The intermediate cartridges used in assault rifles possess significantly less kinetic energy than a regular centerfire rifle cartridge



Figure 1.11 SKS-45.



Figure 1.12 Chinese AKS-47 semi-automatic rifle.

designed for hunting. In addition, since most ammunition used in these weapons is loaded with a full-metal jacketed bullet, the wound is even less severe than one might expect.

Shotguns

A shotgun is a weapon that is intended to be fired from the shoulder; it has a smooth bore and is designed to fire multiple pellets from the barrel. Again, barrel length is immaterial in classifying a firearm as a shotgun, although U.S. federal law requires a minimal barrel length of 18 inches. A shotgun may be classified as a single-shot, over-and-under, double-barrel, bolt-action, lever-action, pump-action, or auto-loading. The over-and under shotgun has two barrels one above the other, and the double-barrel version has its barrels side by side. The two barrels in these weapons are often of different choke.

Submachine Guns/Machine Pistols

A submachine gun or machine pistol is a weapon that is designed to be fired from either the shoulder and/or the hip; is capable of full-automatic fire; has a rifled barrel, and fires pistol ammunition. It is often incorrectly called a "machine gun." Semi-automatic carbines (excluding the M-1 Carbine) are a variation of submachine guns. These are either semi-automatic versions of submachine guns or weapons that have the external appearance of a submachine gun. The media has dubbed these "assault pistols." In the case of semi-automatic versions of submachine guns, the internal mechanism is typically so altered that they are essentially a different weapon.

perforates the body whereas B does not. This, of course, assumes the bullets follow the identical paths through the body.

The amount of kinetic energy lost by a bullet depends on four main factors. The **first** is the amount of kinetic energy possessed by the bullet at the time of impact. This, as has been discussed, is dependent on the velocity and mass of the bullet.

The **second factor** is the angle of yaw of a bullet at the time of impact.¹ The yaw of a bullet is defined as the deviation of the long axis of the bullet from its line of flight. When a bullet is fired down a rifled barrel, the rifling imparts a gyroscopic spin to the bullet. The purpose of the spin is to stabilize the bullet's flight through the air. Thus, as the bullet leaves the barrel, it is spinning on its long axis, which in turn corresponds to the line of flight. As soon as the bullet leaves the barrel, however, it begins to wobble or yaw. The amount or degree of yaw of a bullet depends on the physical characteristics of the bullet (its length, diameter, cross-sectional density), the rate of twist of the barrel, and the density of the air.

Angles of yaw have been determined with certainty only in military weapons. The maximum angle of yaw at the muzzle may vary from 1.5 degrees for a 150-gr. .30–06 Spitzer bullet, to 6 degrees for a 55-gr. .223 (5.56 mm × 45) bullet. Extremes in temperature can increase yaw and thus the stability of the bullet. Altering the rate of twist in the barrel or the weight of the bullet can also alter the angle of yaw. The AR-15/M-16, as originally designed, had a barrel twist of 1/14 in. (1/356 mm). This twist was too slow, however, so that bullets fired from the weapon were so unstable as to cause significant problems in accuracy. In order to correct this flaw and to stabilize the bullet, the twist rate was changed to 1/12 in (1/305 mm). While this twist rate was sufficient to stabilize the 55-gr. bullet, when the U.S. military adopted the 62-gr. bullet, this rifling was found to be too slow to stabilize the heavier bullet and the rifling was changed to 1/7 in. (1/178 mm)

The greater the angle of yaw of a bullet when it strikes the body, the greater the loss of kinetic energy. Because retardation of a bullet varies as the square of the angle of yaw, the more the bullet is retarded, the greater is the loss of kinetic energy.

As the bullet moves farther and farther from the muzzle, the maximum amplitude of the yaw (the degree of yaw) gradually decreases. At 70 yards, the degree of yaw for the 55-gr. .223 (5.56×45 -mm) caliber bullet decreases to approximately 2 degrees. This stabilization of the bullet as the range increases explains the observation that close-up wounds are often more destructive than distant wounds. It also explains the observation that a rifle bullet penetrates deeper at 100 yards than at 10 feet.

Although the gyroscopic spin of the bullet along its axis is sufficient to stabilize the bullet in air, this spin is insufficient to stabilize the bullet when

Case: 1:21-cv-04595 Document #: 98-1 Filed: 04/24/23 Page 34 of 304 PageID #:1561

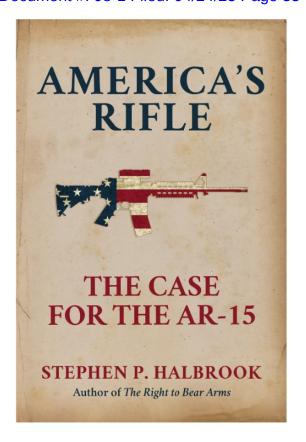
EXHIBIT 3











1 / 420 >





Published by Bombardier Books An Imprint of Post Hill Press ISBN: 978-1-63758-680-8 ISBN (eBook): 978-1-63758-073-8

America's Rifle: The Case for the AR-15 © 2022 by Stephen P. Halbrook All Rights Reserved

Cover Design by Tiffani Shea

Interior Design by Yoni Limor

No part of this book may be reproduced, stored in a retrieval system, or transmitted by any means without the written permission of the author and publisher.



Post Hill Press New York . Nashville posthillpress.com

Published in the United States of America

INTRODUCTION

"A pregnant woman is credited with saving the lives of her husband and daughter after she used an AR-15 to fatally gun down a home intruder," according to a 2019 news report from Florida. Two armed, masked intruders pistol-whipped her husband and grabbed their eleven-year-old daughter. The eight-month pregnant woman used the family's AR-15 semiautomatic rifle to shoot one of the intruders fatally while the other one fled. Had this occurred in California or six other states, the couple could have been arrested for criminal possession of an "assault weapon."

The AR-15 rifle has aptly been called "America's rifle." It is the most popular rifle in the United States, owned and used by millions of lawabiding citizens. Some 24,446,000 AR-15s or other such rifles, often called modern sporting rifles (MSRs), were produced in the United States or imported between 1990 and 2020. "The MSR remains the most-popular selling centerfire semiautomatic rifle in the United States today. There are more MSRs in circulation today than there are Ford F-Series trucks on the road." About half of all rifles produced in 2018 were of those types. 3

Surveys show that "30.2% of gun owners, about 24.6 million people, have owned an AR-15 or similarly styled rifle, and up to 44 million such rifles have been owned." In 2022, the Bureau of Alcohol, Tobacco,

Firearms and Explosives, which enforces the federal Gun Control Act, referred to "the AR-15-type rifle, one of the most popular firearms in the United States."5

In 2021, 75 percent of those who shot a center-fire rifle shot a MSR. Of the 66 percent who hunted with a center-fire rifle, 60 percent used a MSR.⁶ MSRs are versatile for hunting because they are modular, meaning that the upper receiver (which includes the barrel) can be switched for barrels in different calibers, using the same lower receiver (which holds internal parts and shoulder stock). "A hunter can use an upper chambered in .223 Rem. for prairie dogs or other varmint and swap it out for an upper chambered in .300 Blackout for hogs or whitetails."7

A gun-prohibitionist lobby asserts that "assault weapons" are only in common use by criminals and, in fact, are "preferred by criminals over law abiding citizens eight to one."8 But every AR-15 and every other firearm manufactured is first sold through a federally-licensed firearms dealer to a person who passes the FBI's National Instant Criminal Background System (NICS).9 That gun purchasers are approved by NICS belies the defamatory claim that they are mostly criminals.

While criminals are capable of obtaining firearms by theft and through the black market, that does not negate that the overwhelming number of firearms of all kinds are in the hands of law-abiding persons. The misuse of firearms by criminals does not nullify the constitutional right of citizens to obtain them-and to choose which firearms to obtain.

The Second Amendment to the United States Constitution provides: "A well regulated militia, being necessary to the security of a free state, the right of the people to keep and bear arms, shall not be infringed." By any reasonable reading, that protects the right to keep and bear modern firearms, including rifles like the semiautomatic AR-15.

Since the beginning of the twentieth century, semiautomatic firearms with detachable magazines have been commonly possessed. Despite Jim Crow laws, semiautomatic rifles proved useful in protecting the lives and civil rights of blacks. There is no historical tradition in the United States of banning ordinary firearms or standard-capacity magazines. The first restrictions on the AR-15 and magazines of a certain capacity were only enacted in 1989 and 1990, respectively.

Some forty-three states respect the right of law-abiding citizens to possess modern, semiautomatic rifles. Only seven of the usual suspect states—the nanny states dominated by urban elites that restrict so many traditional liberties—prohibit whole classes of these rifles and punish violation with long terms of imprisonment similar to those for violent crimes. Four of the restrictive states—California, Maryland, New Jersey, and New York—have no arms guarantee in their state constitutions. 10 The arms guarantees of two other states—Connecticut and Massachusetts have been gutted by judicial decisions. 11

Delaware joined the prohibitionist club in 2022, copying California's 1989 declaration that the use of an "assault weapon" as "a sports or

recreational firearm" is outweighed by "the danger that it can be used to kill and injure human beings." 12 But the lawful use of arms in deadly force is guaranteed by the Delaware Bill of Rights: "A person has the right to keep and bear arms for the defense of self, family, home and State, and for hunting and recreational use." 13 Echoing Blackstone, the Delaware Supreme Court has recognized that "the 'right of self-preservation' permitted a citizen to 'repe[l] force by force' when 'the intervention of society in his behalf, may be too late to prevent an injury."14

The prohibited conduct is malum prohibitum—victimless "crimes" that are invented by rulers-and are not malum in se, conduct that is wrong in itself. To make these ordinary rifles sound sinister, they call them "assault weapons."

In addition to those states, four more states ban ordinary magazines that hold over a certain number of cartridges, usually ten. Even though the banned magazines are possessed by the millions throughout the United States, they are called "large capacity magazines" to make them sound like they are too big.

Yet, in District of Columbia v. Heller (2008), the Supreme Court held that the Second Amendment protects firearms that are in common use or that are typically possessed for lawful purposes. 15 The "assault weapon" and magazine bans violate the clear text of the Second Amendment right to "arms" and disregard the Court's precedents.

On April 19, 1775, American patriots bearing their own muskets and

other firearms confronted and overwhelmed a contingent of British Redcoats representing the greatest military power on Earth. Lexington and Concord symbolized the right of the citizen to arm themselves with long guns of the same type as the soldiers and to use those arms to protect liberty.

This book demonstrates that the Second Amendment guarantee that "the right of the people to keep and bear arms, shall not be infringed" protects the individual liberty to possess modern rifles like the AR-15 for all of the reasons set forth by the Supreme Court in *Heller*—self-defense, militia purposes, dissuasion of tyranny, and other lawful purposes. It is based on the amendment's text and on Anglo-American history and tradition.

Today, the overwhelming majority of states recognize the right to possess modern rifles like the AR-15. Only seven states—California, Connecticut, Delaware, Maryland, Massachusetts, New Jersey, and New York—ban such rifles, grandfathering only those that were registered by a deadline. Fearing eventual confiscation, many failed to register their firearms. The District of Columbia and some Chicagoland jurisdictions also ban them, although Illinois does not, and Hawaii bans certain pistols, but not rifles, as "assault weapons."

Those jurisdictions and another three states—Colorado, Washington, and Vermont—also ban standard magazines that hold over a certain number of rounds of ammunition, usually ten or fifteen cartridges. Similar

legislation at the federal level was on the books from 1994 to 2004, but it accomplished nothing and was allowed to sunset.

This book begins by analyzing the text of the Second Amendment, along with the precedents set by the U.S. Supreme Court, which has decided that protected "arms" include those that are commonly used or typically possessed by law-abiding persons for lawful purposes. It is an uncontroverted fact that the AR-15 rifle is in the homes of many millions of Americans, and it would be in the homes of millions more if the prohibitionist states did not criminalize them.

Next, the English origins of the right to have arms, including militia arms, are traced. Under medieval English law, members of the population were required to furnish and train with weapons to protect the realm, and this duty came to be perceived as a right. The monarchs tried to promote the use of the longbow, which could shoot several arrows per minute, and discouraged the use of the crossbow and handgun. Over time, members of the population chose to obtain firearms, which became more prevalent. When the Catholic King James II sought to disarm his Protestant political opponents, he was removed in the Glorious Revolution of 1688.

The Declaration of Rights of 1689 recognized the right of English Protestants to "have Arms for their Defence," which included military-type muskets. Multi-shot, repeating firearms were on the scene well before that epoch, although not yet in common use.

The American settlers would insist on, and expand, their already

existing rights as Englishmen. In the colonies, possession of arms was generally an unchallenged right, a practical necessity, and a legal duty. Arms suitable for both general and militia use were accorded special protection. Repeating firearms that fired multiple shots, while not yet common, were desirable and came to be developed.

As the American Revolution approached, the British began to cut off the supply of arms and ammunition to the colonies. But once armed conflict erupted at Lexington and Concord, British commander Thomas Gage demanded that Bostonians surrender their firearms in exchange for safe passage to leave the city. He then confiscated their muskets, pistols, blunderbusses, and bayonets and reneged on his promise to let them leave. The Revolution was on, and the independent states began adopting constitutions and bills of rights, including recognition of the preexisting individual right to bear arms.

When the Constitution was proposed for the United States, the alarm went out that it had no bill of rights. The Federalists argued that paper guarantees were unnecessary and that the armed populace could overcome a tyranny supported by a standing army. A compromise was reached, and the Bill of Rights, with its prefatory clause in support of the militia and its operative clause guaranteeing the right to bear arms, was adopted. The right to have military small arms was taken for granted as a legal right and a necessary practice. The federal Militia Act of 1792 required able-bodied males to arm themselves with muskets, bayonets, rifles, and pistols.

At the beginning of the early Republic, citizens were at liberty peaceably to possess and carry arms of their choice without any restrictions. Legal commentators such as Supreme Court Justice Joseph Story acclaimed the constitutional right to bear arms as the palladium of liberty of a free state. While a minority of states limited the concealed carrying of certain weapons, the courts upheld the right to keep and bear militia arms.

Repeating firearms, including lever-action rifles and revolvers, exploded onto the scene. Firearms that would fire multiple times without having to reload were a natural technological quest similar to the development of any other tool. A person with a single-shot firearm could be easily overcome by multiple robbers with guns or knives. A dozen arrows could be shot at a frontiersman who could load only a couple of shots in a minute.

The slave codes provided the great exception to the right to possess arms, as well as to other recognized constitutional rights. Slaves were virtually prohibited from firearm possession, while free blacks were required to obtain a license to possess muskets, military arms, and other weapons. Licenses were subject to the discretion of the government's issuing authority.

There has never been any significant American history or tradition of banning long guns. While the carrying of handguns has been the subject of legislation in certain periods, long guns, including militia arms, were never

existing rights as Englishmen. In the colonies, possession of arms was generally an unchallenged right, a practical necessity, and a legal duty. Arms suitable for both general and militia use were accorded special protection. Repeating firearms that fired multiple shots, while not yet common, were desirable and came to be developed.

As the American Revolution approached, the British began to cut off the supply of arms and ammunition to the colonies. But once armed conflict erupted at Lexington and Concord, British commander Thomas Gage demanded that Bostonians surrender their firearms in exchange for safe passage to leave the city. He then confiscated their muskets, pistols, blunderbusses, and bayonets and reneged on his promise to let them leave. The Revolution was on, and the independent states began adopting constitutions and bills of rights, including recognition of the preexisting individual right to bear arms.

When the Constitution was proposed for the United States, the alarm went out that it had no bill of rights. The Federalists argued that paper guarantees were unnecessary and that the armed populace could overcome a tyranny supported by a standing army. A compromise was reached, and the Bill of Rights, with its prefatory clause in support of the militia and its operative clause guaranteeing the right to bear arms, was adopted. The right to have military small arms was taken for granted as a legal right and a necessary practice. The federal Militia Act of 1792 required able-bodied males to arm themselves with muskets, bayonets, rifles, and pistols.

At the beginning of the early Republic, citizens were at liberty peaceably to possess and carry arms of their choice without any restrictions. Legal commentators such as Supreme Court Justice Joseph Story acclaimed the constitutional right to bear arms as the palladium of liberty of a free state. While a minority of states limited the concealed carrying of certain weapons, the courts upheld the right to keep and bear militia arms.

Repeating firearms, including lever-action rifles and revolvers, exploded onto the scene. Firearms that would fire multiple times without having to reload were a natural technological quest similar to the development of any other tool. A person with a single-shot firearm could be easily overcome by multiple robbers with guns or knives. A dozen arrows could be shot at a frontiersman who could load only a couple of shots in a minute.

The slave codes provided the great exception to the right to possess arms, as well as to other recognized constitutional rights. Slaves were virtually prohibited from firearm possession, while free blacks were required to obtain a license to possess muskets, military arms, and other weapons. Licenses were subject to the discretion of the government's issuing authority.

There has never been any significant American history or tradition of banning long guns. While the carrying of handguns has been the subject of legislation in certain periods, long guns, including militia arms, were never







considered controversial. The right of an American to have a rifle or shotgun was never an issue or called into question. There are no judicial decisions on whether long guns were included in the right to bear arms because no laws were passed banning them.

When slavery was abolished in 1865, the Southern states reenacted the slave codes as the black codes, a prominent provision of which was the requirement that African Americans must obtain a license, subject to official discretion, to possess and carry firearms of any kind. Congress sought to prohibit the confiscation of unlicensed firearms, including military muskets that black soldiers kept from their service, from the newly freed slaves through passage of the Civil Rights and Freedmen's Bureau Acts of 1866. The Fourteenth Amendment was proposed and ratified, intending, in part, to protect the right to bear arms from state violation. The Civil Rights Act of 1871 provided for enforcement of that and other rights.

All the while, advances were being made in the technology of repeating arms. Six-shot revolvers, which replaced single-shot pistols, came under fire in judicial decisions on laws restricting concealed weapons. But the courts that looked in askance at pocket pistols sometimes contrasted the carrying of rifles, which, by then, included multi-shot lever actions, which were seen as wholly legitimate.

In *Presser v. Illinois* (1886), the Supreme Court upheld a state requirement of a license to parade with arms in cities but admonished that

all citizens capable of bearing arms are the reserved militia and that a state may not prohibit the people from keeping and bearing arms, which would deprive the United States of its powers over the militia. ¹⁶ The Court in *United States v. Miller* (1939) held that arms that would be useful in a militia are protected by the Second Amendment. ¹⁷ In a 1994 case, the Court referred to the AR-15 semiautomatic rifle in the context of discussing the "long tradition of widespread lawful gun ownership" in America. ¹⁸

Finally, in *District of Columbia v. Heller* (2008), the Court held that the District's ban on commonly possessed arms—there, handguns—violated the individual right to keep and bear arms. The Court also rejected the view that the right could be dismissed by judge-made interest-balancing tests. That was followed by the Supreme Court's *McDonald v. Chicago* decision in 2010,¹⁹ which held the right to arms to be fundamental and protected from state violation by the Fourteenth Amendment.

After that, the Court held in a stun gun case that the Second Amendment extends to "arms...that were not in existence at the time of the founding." ²⁰ AR-15s and other semiautomatic rifles are in far more common use than stun guns.

In 2022, in *New York State Rifle and Pistol Association v. Bruen*, the Court held that the right to bear arms includes carrying handguns in public. Relying on text and history, it rejected the balancing tests relied on by lower courts, reaffirmed the common-use test, and noted that "even

though the Second Amendment's definition of 'arms' is fixed according to its historical understanding, that general definition covers modern instruments that facilitate armed self-defense."21

Notwithstanding the above, prior to Bruen, five federal circuit courts of appeals considered "assault weapon" bans and upheld them in each case. First to rule was the D.C. Circuit, which rejected common use as the test and relied on legislative testimony to uphold a ban; then-Judge Brett Kavanaugh wrote a spirited dissent.²² The Second Circuit next upheld Connecticut's and New York's bans without even analyzing the features that supposedly rendered the banned firearms unprotected by the Second Amendment.²³

While these decisions conceded that the banned firearms are in common use, the Seventh Circuit (over a dissent)—upholding a local Illinois ban—questioned the viability of that test from Heller.²⁴ In an en banc decision with dissents, the Fourth Circuit pushed the envelope further, validating Maryland's ban, in deciding that semiautomatic firearms may be banned because they are "like" machine guns, which they obviously are not. 25 Finally, the First Circuit upheld Massachusetts' ban based on "combat features" that it never identified.26

The U.S. District Court for the Northern Mariana Islands saw through the haze and found that the pistol grip, adjustable stock, and flash suppressor make a rifle more accurate and safer to use for the law-abiding

citizen. It, therefore, found that a ban violated the Second Amendment.²⁷

Some common myths must be cast aside at the outset for a serious consideration of the issue. The term "assault weapon," while usually applied to some kind of rifle, is actually a pejorative term without a definite meaning. It was invented to sow confusion in the public between semiautomatic rifles and fully automatic military weapons like the M16 rifle. The banned rifles are semiautomatic firearms, just like other semiautomatic firearms, that fire one round for each pull of the trigger. The features that make an otherwise legal semiautomatic firearm an "assault weapon" under various laws do nothing to affect the firearm's functional operation and, if anything, promote safe and accurate use.

One purported feature called a "conspicuously protruding pistol grip" may be found on many diverse types of rifles, including those used in the Olympics, and it promotes accurate fire. Another frequently targeted feature, a telescoping stock, allows rifles to be better fitted to the stature of the user, much like wearing shoes that fit, and hence promotes comfort and accuracy. Each feature that was included in the 1994 federal ban is dissected in chapter 14 of this work. Features included in the California and other state bans are put under the microscope in chapters 12 and 15. Each banned feature is entirely legitimate and desirable for the safe and accurate use of rifles. Throughout, this work explains why such features are not mere "secondary characteristics" that may be banned without adverse consequences to accuracy and safety.²⁸



Surveys frequently show that self-defense is a primary reason individuals choose to own AR-15s and similar firearms. They are particularly attractive for women and older individuals because of their light weight and ease of use, particularly in comparison to shotguns. Rifles are used in crime far more rarely than handguns, and there is no evidence that any of the prohibited "assault weapon" features has been the causal factor of any person's death in a crime.

Bans have been enacted in only a handful of states—only seven ban certain long guns and handguns, while only one more just bans certain handguns—and that some have been upheld is hardly a reason to infer that the federal judiciary, in general, agrees that the bans are constitutional. Judges from the few states with an anti-gun political culture may reflect that culture in their decisions.

More telling is that forty-three states have *not* defined "assault weapons" as certain long guns and handguns and banned them; this could reflect that most lawmakers consider such bans to be unconstitutional and unproductive. Of course, the courts have had no occasion to uphold or invalidate bans that do not exist in these states. It's no accident that eight of the thirteen federal circuits have never considered, post-*Heller*, an "assault weapon" ban under the Second Amendment. Like the dog that didn't bark in the Sherlock Holmes mystery,²⁹ the silence is deafening.

This book analyzes the disconnect between the decisions of the Supreme Court and those of the five circuits that have upheld bans. The

issue is informed by the text, history, and tradition of the Second and Fourteenth Amendments, which includes the development, use, and acceptance by the American public over the past century and a half of repeating and semiautomatic firearms with standard-capacity magazines. Decisions upholding bans on the arms that the people commonly keep and bear are out of touch with that background, depart from the clear test provided by the Supreme Court, and substitute value-laden judicial balancing tests for the plain text of the Second Amendment.

In 2022, the Supreme Court decided *New York State Rifle and Pistol Association v. Bruen*, holding that the right to bear arms entitles citizens to carry handguns in public without showing a special "need." Besides reiterating that firearms in common use are protected, the Court relied on text and history to interpret the Second Amendment, condemning the use of intermediate scrutiny to balance away rights under the amendment—which is exactly what most courts have used to uphold modern rifle bans. ³¹ This decision opens a new chapter in the struggle to protect the right to keep and bear arms.

25-26 / 420

^{1 &}quot;Pregnant Florida Mom Uses AR-15 to Kill Home Intruder," New York Post, Nov. 4, 2019, https://nypost.com/2019/11/04/pregnant-florida-mom-uses-ar-15-to-kill-home-intruder/.

^{2 &}quot;Commonly Owned: NSSF Announces over 24 Million MSRs in Circulation," The National Shooting Sports Foundation, Inc., July 20, 2022,

America's Rifle, The Case for the AR-151-cv-04595 Document #: 98-1 Filed: 04/24/23 Page 45 of 304 Page D #:1572

耳





4

- https://www.nssf.org/articles/commonly-owned-nssf-announces-over-24-million-msrs-in-circulation/.
- 3 Figures based on data from the Bureau of Alcohol, Tobacco, Firearms and Explosives. "NSSF Releases Most Recent Firearm Production Figures," The National Shooting Sports Foundation, Inc., Nov. 16, 2020, https://www.nssf.org/nssf-releases-most-recent-firearm-production-figures/.
- 4 William English, 2021 National Firearms Survey: Updated Analysis Including Types of Firearms Owned 20, Georgetown McDonough School of Business Research Paper, 2021). https://papers.ssrn.com/sol3/papers.cfm? abstract_id=4109494 (accessed Sept. 10, 2022). The above data belies the unsupported claim that "assault weapons represent no more than 3% of the current civilian gun stock, and ownership of those weapons is highly concentrated in less than 1% of the U.S. population." Kolbe v. O'Malley, 42 F. Supp.3d 768, 788 (D. Md. 2014).
- 5 Definition of "Frame or Receiver" and Identification of Firearms, 87 Fed. Reg. 24652 (April 26, 2022).
- 6 Winchester Ammunition, 2022 Ammo Consumption Study, https://www.nssf.org/articles/winchester-ammunition-study-shows-target-shooters-hunters-choose-msrs/ (accessed Sept. 10, 2022).
- 7 Jordan Sillars, "Should Your Next Deer Rifle Be an AR-15?" The Meat Eater, Nov. 11, 2021. https://www.themeateater.com/hunt/firearm-hunting/should-your-next-deer-rifle-be-an-ar-15 (accessed Sept. 10, 2022).
- 8 Brady Center to Prevent Gun Violence, Assault Weapons: Mass Produced Mayhem 10 (Oct. 2008).
- 9 18 U.S.C. § 922(t).
- 10 Eugene Volokh, "State Constitutional Right to Keep and Bear Arms Provisions," http://www2.law.ucla.edu/volokh/beararms/statecon.htm

(accessed Sept. 12, 2022).

- 11 Benjamin v. Bailey, 234 Conn. 455, 478, 662 A.2d 1226 (1995), ("We therefore apply rational basis review, which the statutory ban on assault weapons satisfies."); Commonwealth v. Davis, 369 Mass. 886, 888 (1976), (arms guarantee limited to organized militia, not individuals).
- 12 11 Del. C. § 1464.
- 13 Del. Const., Art. I, § 20 (emphasis added).
- 14 Bridgeville Rifle & Pistol Club v. Small, 176 A.3d 632, 644 (Del. 2017), quoting, inter alia, 1 Blackstone's Commentaries 145–46 n.42 (1803).
- 15 District of Columbia v. Heller, 554 U.S. 570 (2008).
- 16 Presser v. Illinois, 116 U.S. 252 (1886).
- 17 United States v. Miller, 307 U.S. 174 (1939).
- 18 Staples v. United States, 511 U.S. 600, 610–11 (1994).
- 19 McDonald v. Chicago, 561 U.S. 742 (2010).
- 20 Caetano v. Massachusetts, 136 S. Ct. 1027, 1028 (2016) (per curiam).
- 21 New York State Rifle & Pistol Association v. Bruen, 142 S. Ct. 2111, 2132 (2022).
- 22 Heller v. District of Columbia, 670 F.3d 1244, 1269 (D.C. Cir. 2011) (Heller II) (Kavanaugh, J., dissenting).
- 23 New York State Rifle and Pistol Ass'n, Inc. v. Cuomo, 804 F.3d 242 (2d Cir. 2015).
- 24 Friedman v. City of Highland Park, Ill., 784 F.3d 406, 407 (7th Cir. 2015).
- 25 Kolbe v. Hogan, 849 F.3d 114, 125 (4th Cir. 2017) (en banc).
- 26 Worman v. Healey, 922 F.3d 26, 36 (1st Cir. 2019).





- 27 Murphy v. Guerrero, No. 1:14-CV-00026, 2016 WL 5508998, *18-20 (D. N. Mariana Islands, Sept. 28, 2016).
- 28 By contrast, a firearm with an obliterated serial number has no utility to a lawful user and can be banned. "[I]t...would make little sense to categorically protect a class of weapons bearing a certain characteristic wholly unrelated to their utility. *Heller* distinguished handguns from other classes of firearms, such as long guns, by looking to their functionality." *United States v. Marzzarella*, 614 F.3d 85, 94 (3d Cir. 2010).
- 29 Arthur Conan Doyle, "Silver Blaze," in *The Complete Sherlock Holmes* 383 (New York: Garden City Publishing, 1938).
- 30 New York State Rifle & Pistol Association v. Bruen, 142 S. Ct. 2111, 2122 (2022).
- 31 Id. at 2127-28.

28-29 / 420 >



his victims at a grocery store, anticipating no resistance because New York law generally denies the right of civilians to carry handguns.

So much for the effectiveness of New York's "assault weapon" ban.

The Horrifying "Conspicuously Protruding Pistol Grip"—Evil, Wicked, Mean, and Nasty

All handguns have a pistol grip that allows the weapon to be held in the hand. Heller held that handguns, with their essential feature of a pistol grip, may not be banned. However, some laws define assault weapons as rifles that include the feature of a "conspicuously protruding pistol grip."

Whether on a handgun or a rifle, a pistol grip is simply a handle by which one holds the firearm. That feature raises a mysterious metaphysic of why Second Amendment protection is accorded to a pistol with a pistol grip and a rifle with a pistol grip that protrudes inconspicuously but suddenly evaporates when it comes to a rifle with a pistol grip that protrudes conspicuously. Aside from the inherent vagueness of the term "conspicuously," it is unclear how a constitutionally protected object loses protection because something about it looks conspicuous to who knows who.

In the gun industry, a "pistol grip stock" is defined as "[a] stock or buttstock having a downward extension behind the trigger guard somewhat resembling the grip of a pistol." A "straight stock" is "[a] stock with no pistol grip...Also known as: English stock, straight grip stock."⁵³ Straight stocks predominated until the twentieth century, when rifles with pistol grip stocks became common. Traditionally, the pistol grip is part of the complete stock, which is usually wooden, while the pistol grip on rifles like the AR-15 is usually a separate part from the shoulder stock. The term "conspicuously protruding" as applied to a pistol grip stock is a recent invention of the anti-gun movement.

If sometimes a cigar is just a cigar, as Freud is reported to have said, sometimes a pistol grip is just a pistol grip. Like a barrel or sights, there is nothing specifically military or civilian about it. That is exemplified by the fact that, from the beginning, civilian AR-15s had some of the same parts as the military M16. But they differed radically in that the M16 was designed for fully automatic fire.

Perhaps the most distinctive outward feature of an AR-15 is the protruding pistol grip. As discussed below, the purpose of the pistol grip is to have a comfortable grasp with the same hand that pulls the trigger while holding the stock to the shoulder and allowing the other hand to hold the fore-end under the barrel. But an urban myth dramatically asserts that the real purpose of the pistol grip is to enable the shooter to spray-fire from the hip to kill as many people as quickly as possible. ⁵⁴ That is the only justification given for banning that feature, and it is blatantly false.

The myth of spray-firing from the hip was originally created by Hollywood for second-rate action movies. That myth becomes reality in the

36 / 420 >



minds of people who are ignorant about the actual workings of firearms. No person familiar with firearms would fire a rifle from the hip. Anyone pulling the trigger uncontrollably and spray-firing from the hip will miss most or all shots. This myth has become so entrenched among the uninformed that some courts rely on it when they uphold laws banning semiautomatic rifles because of their protruding pistol grips. ⁵⁵

Yet identical pistol grips are found on single-shot and bolt-action rifles 56 and even on air guns used in Olympic competition. 57 Single-shot rifles have no magazine, hold only one cartridge at a time, and must be laboriously reloaded. Bolt-action rifles may have a magazine but require manual reloading after each shot. It is inconceivable that the purpose of the pistol grips on any rifle is to facilitate spray-firing from the hip.

The M16 military service rifle and its variations have a protruding pistol grip, so military sources are relevant and helpful. The Army manual "Rifle Marksmanship, M16-/M4-Series Weapons" (2008) illustrates firing from the kneeling, standing, and prone positions and instructs the reader: "Place the firing hand on the pistol grip, with the weapon's buttstock between the SAPI plate and the bicep to stabilize the weapon and absorb recoil." (A SAPI [Small Arms Protective Insert] plate is a type of body armor that extends to the area beside the shoulder.) It further instructs, "Grip the weapon firmly, and pull it into the shoulder securely." The manual adds that "unaimed fire must never be tolerated," and it instructs the soldier "to properly aim the weapon" by "keep[ing] the cheek on the

stock for every shot, align[ing] the firing eye with the rear aperture, and focus[ing] on the front sight post." ⁶⁰ That means aimed firing from the shoulder and not firing from the hip. If "a target cannot be engaged fast enough using the sights in a normal manner," the soldier is told to shoulder the rifle and fire a quick aimed shot or, if that's not possible, to "keep the weapon at your side" and "quickly fire a single shot or burst." ⁶¹ (It does not say to lower it to the hip.) A single shot is obviously not spraying fire. A burst consists of multiple shots with a single pull of the trigger, of which a semiautomatic is incapable.

Dennis P. Chapman, a West Point graduate and retired army infantry officer who served in campaigns in Somalia and Iraq, conducted a study of military training manuals published from 1923 through 2012 and concluded that "there is not the slightest evidence" that pistol grips "were developed or deployed intending to facilitate the spraying of fire from the hip." Such manuals devote almost exclusive focus on firing from the shoulder. 63

Some earlier military manuals mentioned, as a minor technique, firing from an underarm position (not the hip), but this had nothing to do with the presence or absence of a perpendicular pistol grip. The Thompson submachine gun had a pistol grip, but firing from the hip was denigrated as "relatively ineffective." ⁶⁴ The M1 Garand, the first U.S. semiautomatic service rifle, had no protruding pistol grip but could be used to fire "well-directed shots"—not to spray fire—from under the arm at short

distances.65

A 1966 manual for the M16, which has a protruding pistol grip, "identified the underarm firing position as an automatic firing position only, making no reference to it whatsoever in the section devoted to semi-automatic firing..."⁶⁶ And a 1971 army marksmanship study concluded that "[f]iring from the underarm position was grossly inferior to firing from the shoulder position in both speed and accuracy..."⁶⁷

There is a type of firearm that would be fired from the hip and would spray fire: certain submachine guns firing in fully automatic mode in close quarters. ⁶⁸ But it would *not* have a pistol grip, which would require one to torque and strain the wrist and forearm. Moreover, a submachine gun fires pistol cartridges, which makes it far more controllable than a rifle firing more powerful rifle cartridges.

A rifle with a protruding pistol grip, when held comfortably at the hip, points down to the ground. By contrast, a rifle without such a grip—such as a traditional hunting rifle or shotgun—may be held comfortably at the hip with the barrel pointing forward. One can conduct the simple exercise of holding an imaginary rifle with the rear hand even with the hip as if holding a flashlight (like holding a stock with no pistol grip) and then twisting the hand upward to a vertical position (like holding a pistol grip). The no-pistol-grip hold is comfortable, while the pistol-grip hold causes an uncomfortable strain. Just doing this simple exercise exposes the "spray-fire from the hip" argument as a myth.

Protruding pistol grips—whether on semiautomatic or single-shot rifles—facilitate firing from the shoulder. Neither soldiers nor civilians are trained to fire from the hip. Anyone who spray-fires from the hip will miss most, if not all, shots. Yet states ban rifles for having the feature of a protruding pistol grip, and the only justification that has been offered for such bans is that the grips facilitate spray-firing from the hip. And as shown elsewhere in this work, courts uphold the bans for the false reason that mass murderers prefer such a grip in order to spray-fire from the hip.

Police nationwide are issued, or purchase their own, AR-15-style rifles. "In today's patrol vehicles it seems you're most likely to find a semi-automatic rifle chambered in .223. It's probably an AR-15 variant with a barrel that measures somewhere between 16" to 20". The federal Fourth Circuit found that "the standard service weapons issued to law enforcement personnel come with large-capacity magazines." States that ban "assault weapons" for civilians exempt law enforcement officers and even retired officers.

No one suggests that active and retired officers possess such firearms to spray-fire from the hip at innocent victims. Instead, police use such rifles and magazines because they are considered well suited for self-defense, including in an urban environment. Yet when New York civilians challenged that state's ban, the state filed "affidavits of chiefs of police opining that assault weapons may not be well suited for self-defense, especially in an urban environment..." So it's self-defense for me, but not

for thee.

It has been argued that law enforcement officers, based on their extensive training, are qualified to use rifles like the AR-15 but that ordinary citizens are not trained and thus would endanger public safety if they use such rifles. While SWAT teams may be highly trained, the average cop is only required to qualify at the range perhaps a time or two per year. And regardless of how often officers actually use AR-15s, they are far safer than handguns in instances when a bad guy needs to be taken out at a distance. Fatal consequences ensued in Uvalde, Texas, in 2022 when an officer had the shooter in his rifle sights at over one hundred yards and hesitated to fire, allowing the killer to enter the school.⁷³

Countless civilians practice with AR-15s multiple times per year at ranges, and many participate in matches with them. At any rate, AR-15s are no harder to use safely and properly than other firearms. And numerous instances exist in which citizens have used them in lawful self-defense without harming bystanders.

What kind of grip should transform an ordinary, legal rifle into a banned assault weapon? The expired federal ban defined "assault weapon" in part as "a semiautomatic rifle that has an ability to accept a detachable magazine and has at least 2" features, one of which was "a pistol grip that protrudes conspicuously beneath the action of the weapon."⁷⁴ How conspicuous it must be-and how much of a protrusion in inches and at what angle-was left unsaid.

California defines those terms in its regulations: "Pistol grip that protrudes conspicuously beneath the action of the weapon' means a grip that allows for a pistol style grasp in which the web of the trigger hand (between the thumb and index finger) can be placed beneath or below the top of the exposed portion of the trigger while firing."⁷⁵ Rifles with a flat fin behind the grip that forces the thumb in an upward, "hitchhiking" position comply with that definition, but they cannot be held as firmly as rifles with the banned grip. 76 It also makes it harder to engage the safety.



Springfield Saint Victor AR-15, California Compliant. Springfield Armory. This otherwise normal looking rifle has a "fin grip" to comply with California's prohibition on a rifle with "a grip that allows for a pistol style grasp in which the web of the trigger hand (between the thumb and index finger) can be placed beneath or below the top of the exposed portion of the trigger." The fin forces the thumb into a "hitchhiker" position instead of encircling what would otherwise be a pistol grip.

It seems incredible that a rifle would lose Second Amendment protection because the web of the trigger hand may be placed "beneath or

38-39 / 420





below" a certain position but not if placed above that position. Or indeed, that a rifle with an inconspicuously protruding pistol grip is protected, but not one with a conspicuously protruding pistol grip. What kind of grip should transform an ordinary, legal rifle into a banned assault weapon? There is no non-frivolous answer to this question. If the Second Amendment protects anything, it protects a firearm regardless of the position of the trigger hand or the degree of conspicuousness of its grip.

Trying to Define the Undefinable: The Pre-Heller Era

Proponents of banning so-called "assault weapons" were hampered from the beginning, not just by the undefinable nature of the term but also by their lack of knowledge about firearms. They wished to incarcerate their fellow citizens for what was a demon in their minds but didn't know what they were talking about. That recalls, in Justice Scalia's words, that "one of emperor Nero's nasty practices was to post his edicts high on the columns so that they would be harder to read and easier to transgress."⁷⁷

The following analyzes four early bans, three of which were declared unconstitutionally vague. Challenging the laws under the Second Amendment was not an option because of pre-Heller lower court decisions holding that "collective rights," not individual rights, were protected. This author represented the challengers in each instance.

Springfield Armory v. Columbus: An Arbitrary List of Makes and Models

In 1994, in Springfield Armory, Inc. v. City of Columbus, the U.S. Court of Appeals for the Sixth Circuit became the first federal circuit to rule on whether an assault weapon ban was unconstitutionally vague, and it declared the ban to be wholly void. 78 The Columbus ordinance defined "assault weapon" to include a list of forty-six specific firearms (with the mistaken use of machine gun names in place of semiautomatic firearm names, of names with typographical errors, and names that do not describe any known firearms) together with "other models by the same manufacturer with the same action design that have slight modifications or enhancements of firearms listed...provided the caliber exceeds .22 rimfire."79

The opinion authored by Chief Judge Gilbert Merritt declared that the ordinance is "unconstitutionally vague on its face." 80 The court began with the rule that vague laws fail to give notice so as to allow persons to obey, and such laws also allow arbitrary and discriminatory enforcement.⁸¹ The court's analysis suggests that the ordinance violated the equal protection clause of the Fourteenth Amendment and also was vague:

The ordinance is fundamentally irrational and impossible to







CHAPTER 4

THE ENGLISH DECLARATION OF RIGHTS OF 1689 GUARANTEED THE RIGHT OF "ARMS FOR THEIR DEFENCE"

In reaction to James II's disarming of Protestants, who were the vast majority of the population, the Glorious Revolution of 1688 forced the king to abdicate and resulted in William of Orange and his wife Mary II assuming the throne. The Declaration of Rights of 1689 declared the right of Protestants to have arms for their defense as one of the true and ancient rights of the subjects. By that time, firearms technology had become more efficient and reliable, and repeating firearms that shot multiple rounds had been invented. As late as 1780, when London was partially destroyed by the worst rioting and arson in its history, the musket and the bayonet were seen as the right of Englishmen to defend themselves and their communities.

The Declaration of Rights of 1689 Confirming "The True, Ancient, and Indubitable Right" to Have Arms

On December 6, 1686, just two weeks after Sir John Knight's acquittal, Robert Spencer, who was the Earl of Sunderland and the Lord Lieutenant of Warwickshire, issued a directive to Richard Boyle, the Earl of Burlington and the Lord Lieutenant of the West Riding of Yorkshire. Spencer ordered: "The King having received information that a great many persons not qualified by law under pretence of shooting matches keep muskets or other guns in their houses, it is his pleasure that you should send orders to your Deputy Lieutenants to cause strict search to be made for such muskets or guns and to seize and safely keep them till further order." 1

Similar letters were sent to the Earl of Derby, Viscount Fauconberg, the Duke of Somerset, the Earl of Thanet and the Bishop of Durham.² These lords lieutenant represented the King in each county and were responsible for organizing their county's militias.

Most persons were not "qualified by law" under England's 1670 Game Act. That act authorized searches of houses for firearms, 3 as did the Militia Act of 1662. As the above reflects, James II meant to confiscate all muskets and guns from the subjects at large.

By such measures, James II sparked the Glorious Revolution of 1688. A coalition of English leaders invited William of Orange and his wife Mary to assume the English throne. Mary was James's daughter. At the end of 1688, William landed in England with an army of thirty-five thousand men, including four thousand cavalry. James's forces disintegrated, causing him to flee to France and thereby abdicate the throne.

101 / 420



On January 28, 1689, a debate ensued in the House of Commons concerning the proposed abdication of James II. Lord John Somers, who would play a leading role in drafting the Declaration of Rights, kept notes of the debate. His notes demonstrate the perceived abuses under the Militia Act of 1662, which had allowed searches and seizures of the arms of private citizens. Sir John Maynard, Sergeant at Law, complained: "An Act of Parliament was made to disarm all Englishmen, whom the Lieutenant should suspect, by day or by night, by force or otherwise." Heneage Finch, the 1st Earl of Aylesford, thought that no man would be safe under the King, adding, "The constitution being limited, there is a good foundation for defensive arms."

"Militia bill. – Power to disarm all England. – Now done in Ireland," lamented Sir Richard Temple, according to Somers's notes. Hugh Boscawen's attack on the ministry's arbitrary power indicates that the members of Parliament themselves had no immunity: "Imprisoning without reason; disarming. – Himself disarmed." An abominable thing to disarm the nation, to set up a standing army," Sergeant Maynard agreed. And William Sacheverel brooded: "Disarmed and imprisoned without cause." All of the above members of Commons were appointed to committees to draft the Declaration of Rights.

The Declaration of Rights of 1689 listed among the ways that James II attempted to subvert "the Laws and Liberties of this Kingdom." In addition

to raising a standing army in peacetime without Parliament's consent, it included: "By causing several good Subjects, being Protestants, to be disarmed, at the same Time when Papists were both armed and employed, contrary to law." The act accordingly declared thirteen "true, ancient and indubitable rights," including the following: "That the Subjects which are Protestants, may have Arms for their Defence suitable to their Condition, and as are allowed by Law." 12

What did the Declaration mean by "Arms"? "Armes (arma) In the understanding of Law, are extended to any thing that a Man wears for his defence, or takes into his hands, or useth in his wrath to cast at, or strike another." That was the definition appearing in Thomas Blount's Nomolexikon: A law-dictionary: interpreting such difficult and obscure words and terms as are found either in our common or statute, ancient or modern, laws, published in 1670 and in later editions. ¹³

Common "Arms" then, as now, included firearms, edged weapons, and blunt instruments. Most firearms had to be reloaded after each shot. Muskets, which were being transitioned from matchlocks to flintlocks, were typically .75 caliber. ¹⁴ That was a powerful, deadly weapon that could create a three-quarters-of-an-inch wound. By comparison, today's AR-15 rifle typically fires a .223 caliber bullet, which is less than a quarter of an inch in diameter. In other words, the seventeenth-century musket fired a bullet three times larger in diameter than the bullet usually fired by the AR-15.

:



However, repeating firearms—guns that fire multiple rounds without reloading—had been developed in the previous century. A wheel-lock gun was built circa 1580 to 1590 that fired sixteen rounds without reloading with a single pull of the trigger. ¹⁵ That was roughly three centuries before semiautomatic firearms began their rise to prominence in the 1890s. Around 1650, Michele Lorenzoni, a Florentine gunsmith, invented a repeating flint-lock gun that fired several shots from two tubular magazines holding powder and ball in the shoulder stock. A lever was pulled after each shot to load another round. ¹⁶

In 1664, Abraham Hill of London patented a repeating flintlock, which could be loaded swiftly and was copied by numerous other English gunsmiths. ¹⁷ John Cookson of London made several repeating guns based on this design, one of which was built around 1690 that is on display today at the British Galleries. ¹⁸

Harman Barne of London, who worked as a gunsmith during 1640–1685, built a repeating six-shot breech-loading magazine rifle with a revolving mechanism. John Dafte, another London gunsmith in that period, designed a six-shot snaphaunce revolving carbine. ¹⁹ A snaphaunce utilized a flint striking steel to induce a spark. A flintlock repeating twenty-five-shot carbine, circa 1680, was designed in Italy, and upwards of one thousand were probably made. ²⁰

As noted, the Declaration of Rights stated: "That the Subjects which are

Protestants, may have Arms for their Defence suitable to their Condition, and as are allowed by Law." So while most firearms were single shots, the technology of repeating arms was quietly developing.

The terms "suitable to their Condition" referred to statutes dating back as far as the Assize of Arms of 1181 requiring persons to arm themselves for militia duty based on what they could afford under their economic status.²¹ Such arms were suitable for military service.

The phrase "as are allowed by Law" precluded royal decrees to disarm subjects. To the extent it referred to acts of Parliament, limitations presumably existed on that power, as the Declaration referred to "true, ancient and indubitable rights," which would have included natural and common law rights.²²

That is further clarified by Sir William Blackstone's reference to the right of Englishmen "of having arms for their defence suitable to their condition and degree, and such as are allowed by law. Which is also declared by the same statute 1 W. & M. st.2 c.2 [the Declaration of Rights], and it is indeed, a public allowance under due restrictions, of the natural right of resistance and self-preservation, when the sanctions of society and laws are found insufficient to restrain the violence of oppression." ²³ In short, the subjects were entitled "to the right of having and using arms for self-preservation and defense." ²⁴ Inherent in those uses would be arms sufficient to allow self-preservation and defense against both individual criminals and a tyrannical regime.



But the right to have and use arms for self-preservation and defense did not give license to persons to go armed in a manner to terrorize the subjects. Blackstone explained:

The offence of riding or going armed, with dangerous or unusual weapons, is a crime against the public peace, by terrifying the good people of the land; and is particularly prohibited by the Statute of Northampton, upon pain of forfeiture of the arms, and imprisonment during the king's pleasure: in like manner as, by the laws of Solon, every Athenian was finable who walked about the city in armour.²⁵

Although Blackstone referred above to "dangerous *or* unusual weapons," Hawkins wrote in 1716 that there may be an affray "where a man arms himself with dangerous *and* unusual weapons, in such a manner as will naturally cause a terror to the people...." America's founders, such as Justice James Wilson, and American courts repeated Hawkins's rendition of the rule. It would read too much into Blackstone's casual use of "or" to suggest that it was an affray to go or ride armed with a weapon that is "dangerous," which any weapon can be, without it also being "unusual."

Regarding the laws written by the Athenian statesman Solon around 594 BC, Blackstone cited John Potter's *Archæologiæ Græcæ*, *or*, *The antiquities of Greece*, which stated: "He shall be fin'd, who is seen to walk the

City-streets with a Sword by his side, or having about him other Armour, unless in case of Exigency." ²⁸ Blackstone referred above to an Athenian who "walked about the city in armour" but dropped Potter's reference to "with a Sword by his side," perhaps because a common sword might not terrorize others, but armor might.

As Potter further related, however, special occasions to wear armor were ubiquitous in ancient Greece. Another law of Solon provided that if a parent were slain in war, the child, upon maturity, "shall be presented with a whole suit of Armour..." There were festivals "in which great numbers of the Citizens made a Solemn Procession out of the City in Armour," where the most Beautiful Man was presented with a complete Suit of Armour, and where "a certain Dance call'd Pyrrhichia, [was] perform'd by young Boys in Armour..." And there were "solemn Games, in which Men ran Races in Armour..."

"Above all things," Potter further related, "especial care was taken that Slaves should not wear Armour, which...might have been dangerous to the Publick." 34

Less than a decade after its adoption, the Declaration of Rights provision on standing armies came to be expounded in detail by the Whigs who had given birth to it. Andrew Fletcher, a former member of the Scottish Parliament who escaped the death sentence by James II and who joined William of Orange at the Hague in 1688, supported a constitution



that "put the sword into the hands of the subject," 35 for "he that is armed, is always, master of the purse of him that is unarmed." 46 "And I cannot see, why arms should be denied to any man who is not a slave, since they are the only true badges of liberty...." 37 In a later work, Fletcher proposed that any successor to the crown agree "that all the sensible men of the nation, betwixt sixty and sixteen, be, with all diligence possible, armed with bayonets, and firelocks all of a caliber, and continue always provided in such arms, with ammunition suitable." 38

The author of *The Claims of the People of England*, identified only as a member of the Country Party, further expressed the Whig philosophy in arguing that the people have "Just Claim to the use of Arms for the defense of their King and Themselves under Him..." In citing statutes of Henry VIII, the author stated:

'Tis true, the Law forbad Cross-bows that the Game might be preserved; but they ventured their Game to the Long-bow, as they may now to the Bullet and Musket with equal Security.... May not the People be trusted to guard the King, their Landlords, and themselves? ... Madmen indeed ought not to be trusted with Weapons. But the care we took of our selves in preserving our Rights against the Incroachments of our late King ... may challenge that an old Right of handling Arms be trusted to us....⁴⁰

The author anticipated that each person would purchase his own firearms: "May not the Method of Bows and Arrows be accommodated to Guns and Ball? This new Artillery is somewhat more chargeable [i.e., expensive]; but are not the greatest part of the People able to bear the Charge themselves?" He rejected the argument that "arming the People" would lead to tumults, which were instead caused by scarcity of food and work. A just stability would follow from a populace accustomed to handling arms. For if it be granted that an armed People will support a just and legal administration both in State and Church, 'tis no great harm if the People, by the help of their Arms, should happen to defend themselves against Tyranny and Oppression."

The above perfectly expressed the political philosophy behind the Glorious Revolution and the Declaration of Rights, and it would find its way to the American colonies. Before moving to that subject, it would be useful to discuss a traumatic incident in English history that took place a century later in which members of the public took arms to defend their communities from devastating riots. The occasion prompted a restatement of the right of the people to bear arms, including arms useful for militia purposes.

Restating the Right to Bear Arms in the Aftermath of the Gordon Riots of 1780

1







4

CHAPTER 9

THE TWENTIETH CENTURY HERALDS A NEW AGE OF SEMIAUTOMATIC FIREARMS

The latter part of the nineteenth century and the twentieth century heralded continued improvement in firearms technology. Building on prior models of firearms, manufacturers focused increasingly on semiautomatic or self-loading firearms. Once one pulls the trigger and fires a round, another round loads itself and may be fired by another pull of the trigger. Although there have now been countless other models for over a century, today, the AR-15 semiautomatic has become so commonly possessed that it could be called America's rifle.

During Prohibition, a handful of states enacted restrictions on rifles with magazine capacities over a certain number of rounds. All would be repealed. They were needles in haystacks outside of American history and tradition.

During the Jim Crow era, restrictions were imposed to discourage

African Americans from obtaining firearms. As fate would have it, semiautomatics and other repeating firearms would be utilized to protect the black community and the civil rights movement.

Semiautomatic Firearms with Detachable Magazines Have Been Commonly Possessed for Over a Century

Rifles and pistols with detachable magazines came into wide use toward the end of the nineteenth century. Winchester began making semiautomatic rifles with detachable magazines, beginning with the Model 1905, which was followed by the Model 1907. In a case known as *Heller II*, Judge (now Justice) Brett Kavanaugh provided the following concise summary of the early development in the United States of semiautomatic rifles:

The first commercially available semi-automatic rifles, the Winchester Models 1903 and 1905 and the Remington Model 8, entered the market between 1903 and 1906.... The first semi-automatic shotgun, designed by John Browning and manufactured by Remington, hit the market in 1905 and was a runaway commercial success.... Other arms manufacturers, including Standard Arms and Browning Arms, quickly brought their own semi-automatic rifles to market.... Five-shot magazines were standard, but as early as 1907, Winchester was

206 / 420 >

The Second Circuit Upholds the Connecticut and New York Bans: New York State Rifle & Pistol Association

Until recent times, New York courts held that rifles are the most protected of all arms under the Second Amendment. The courts stated that "the arms to which the Second Amendment refers include weapons of warfare to be used by the militia, such as swords, guns, rifles and muskets,"56 and that the legislature "carefully avoided including rifles [for restrictions] because of the Federal constitutional provision."57

While Connecticut courts did not render similar language, one court held that "a Connecticut citizen, under the language of the Connecticut constitution, has a fundamental right to bear arms in self-defense, a liberty interest which must be protected by procedural due process."58

Connecticut enacted an "assault weapon" ban in 1993, and New York passed one the following year. After the horrible murders at Sandy Hook Elementary School in Newtown, both Connecticut and New York redefined the term "assault weapon" in preexisting statutes to include more firearms, mostly semiautomatic rifles, and banned any that were not registered or declared by a specified deadline.⁵⁹ Connecticut banned magazines that would hold more than ten rounds.60

New York became "the first in the nation...to ban any magazine that holds more than seven rounds (rather than a limit of ten)..."61 Sevenround magazines were not even available for most firearms. Not even law enforcement officers were exempt from the ban. When the legislature realized what it had done, it amended the law to allow ten-round magazines but prohibited more than seven rounds from being loaded therein unless at certain shooting ranges or at matches sanctioned by the National Rifle Association or the International Handgun Metallic Silhouette Association. So ten rounds could be loaded for sport, but only seven for home defense. Law enforcement officers were made exempt from the ban.62

In New York State Rifle & Pistol Ass'n, Inc. v. Cuomo ("NYSRPA"), the Second Circuit would follow Heller II and uphold both of these states' expansive bans. 63 The court began by stipulating that the prohibited firearms and magazines were in common use. Specifically, noting the production of nearly four million AR-15 rifles alone between 1986 and March 2013 and countless millions of the banned magazines, the court acknowledged that "the assault weapons and large-capacity magazines at issue are 'in common use' as that term was used in Heller."64 Moreover, it proceeded "on the assumption that these laws ban weapons protected by the Second Amendment."65

Per Heller, the court should have ended its analysis there. But the court instead decided to apply intermediate scrutiny to evaluate the laws, albeit in



a watered-down form that did not require narrow tailoring. 66 It reasoned that while the bans "impose a substantial burden on Second Amendment rights," the burden was not "severe," and further that the laws were "substantially related" to the state interests in public safety and crime prevention.⁶⁷ To support that conclusion, the court averred that the banned rifles are disproportionately misused in crime and that their features make them particularly dangerous. Were those findings accurate?

First, despite handguns allegedly "account[ing] for 71 percent to 83 percent of the firearms used in murders" and the holding of Heller that handguns cannot be banned, 68 NYSRPA asserted that the banned rifles "are disproportionately used in crime, and particularly in criminal mass shootings..."69 The court relied on the Violence Policy Center for the statistic—unsupported by data—that so-called assault weapons were used in 20 percent of killings of law enforcement officers between 1998 and 2001.⁷⁰ If true, that means that such weapons were *not* used in 80 percent of such killings. Moreover, the evidence is that the banned rifles are used in disproportionately fewer such crimes, as "[m]ost of the AWs [assault weapons] used in crime are assault pistols rather than assault rifles."⁷¹

Secondly, what was the basis for the Second Circuit's finding that the banned rifles are extraordinarily dangerous? The court devotes exactly one paragraph, with no substantive discussion, to the features that supposedly make assault weapons so dangerous and unusual. The opinion stated that

features such as the flash suppressor, protruding grip, and barrel shroud, according to plaintiffs, "improve a firearm's 'accuracy,' 'comfort,' and 'utility.' This circumlocution is, as Chief Judge Skretny observed, a milder way of saying that these features make the weapons more deadly."⁷²

Yet that's exactly the reason why law-abiding persons are entitled to keep and bear such firearms. They should have firearms that are accurate, comfortable to hold, and have utility. And it's the very nature of a firearm that it is a deadly weapon. Items that are not "arms" are not protected by the Second Amendment.

Chief Judge William Skretny, who wrote the district court opinion in the New York case, had relied on Justice John Paul Stevens's dissent in McDonald v. Chicago to argue that "the very features that increase a weapon's utility for self-defense also increase its dangerousness to the public at large." 73 Yet the constitutional rights of law-abiding people are not forfeited because of the bad behavior of criminals; "[a]utomobiles, for example, might also be termed 'dangerous' devices," but higherperformance models are not banned.⁷⁴ Since sights on a firearm make it more accurate and hence more deadly, could guns be banned for having sights? Is it preferable that an inaccurate firearm be used in self-defense, exposing an innocent bystander to being shot?

In upholding the New York and Connecticut district court decisions, the Second Circuit in NYSRPA didn't bother making even superficial reference to the specific features and what justified banning them. Instead,

it rendered a lengthy opinion upholding the bans without any substantive discussion of the features that allegedly make them dangerous and unusual.

Consider the specific features condemned by the New York district court. "A muzzle compensator reduces recoil and muzzle movement caused by rapid fire," 75 the court said, suggesting that the feature only benefits mass shooters. But a muzzle compensator has these same benefits in slow fire. Recoil can be painful, and muzzle movement interferes with accuracy. A telescoping stock, as plaintiffs noted, "allows the user to adjust the length of the stock," which "like finding the right size shoe, simply allows the shooter to rest the weapon on his or her shoulder properly and comfortably." The district court found that the feature could aid "concealability and portability," 77 without any reference to the overall length of the rifle, which could be quite long. As for the pistol grip "increas[ing] comfort and stability," 78 it also supposedly allows "spray firing' from the hip."79

Through repetition, and without regard to evidence, myths about firearm features become part of our constitutional law. Heller II asserted them, the district court in the New York challenge repeated them, and the district court in the Connecticut challenge repeated them again. 80 The Connecticut court thought it sufficient to uphold the ban on rifles with specified features by quoting Heller II's reference to "pistol grips" as purportedly "contribut[ing] to the unique function of any assault weapon

to deliver extraordinary firepower."81 No need to explain further and no need to mention the other banned rifle features. Plus, no recognition that "firepower" depends on the cartridge, not the firearm.

The typical cartridge used in an AR-15 is .223 caliber, which uses a small bullet and a medium amount of gunpowder, does not necessarily have enough "firepower" for deer hunting, which usually requires more powerful cartridges with heavier bullets like the .30.06 round.

Actually, Connecticut has its own unique, bizarrely-worded feature that transforms a rifle into an assault weapon: "[a]ny grip of the weapon, including a pistol grip, a thumbhole stock, or any other stock, the use of which would allow an individual to grip the weapon, resulting in any finger on the trigger hand in addition to the trigger finger being directly below any portion of the action of the weapon when firing."82 Why a rifle should lose Second Amendment protection based on finger position was not discussed. Because of the term "when firing," plaintiffs argued that the "provision is vague because it applies or does not apply to every rifle and shotgun depending on how it is being held, but fails to give notice of any assumption that it is being held in a specific manner."83

The district court held that the definition refers to "the normal horizontal firing position" and "is only plausibly vague when applied to a specific use of the weapon."84 It conceded that "the vertical firing position may be 'normal' for certain activities, such as duck hunting," adding, "Ideally, the legislation would have included a more descriptive statement than 'when firing." 85 With that wave of the wand, the court essentially crossed that term out of the definition to save it from vagueness.

Besides generic definitions such as the above, "assault weapon" is defined by Connecticut in part as "[a]ny of the following specified semiautomatic centerfire rifles, or copies or duplicates thereof with the capability of any such rifles, that were in production prior to or on the effective date of this section," following which is a list of eighty-eight model names. An ordinary person cannot be expected (a) to be intimately familiar with each of the eighty-eight listed models of rifles, (b) to know which versions of the listed models were in production prior to or on the effective date of April 4, 2013, and which were not, (c) to know whether a gun in question is a "copy or duplicate" of any one of these named models (and not vice versa), without having any defined criteria for such determination, and (d) to know whether a gun in question has "the capability of any such" listed firearm, again with no criteria for the determination. Only an engineer who designed a firearm might have that information, and only in regard to the firearm in question.

A unique "assault weapon" feature in New York is a "threaded barrel designed to accommodate a...muzzle break," which does not exist. Reference A. "muzzle brake" is a device that reduces recoil or "kick," but does not "break" anything. The district court invalidated as unconstitutionally vague the definitions of "assault weapon" as including the features of a "muzzle break," a nonexistent homophone of "muzzle brake," and of a

semiautomatic pistol being a "version" of an automatic firearm. 90 The Second Circuit reversed, finding "muzzle break" to be clear albeit misspelled, and found "version" to be clear enough because the word appeared in other laws. 91

In upholding the New York and Connecticut district court decisions, the Second Circuit in NYSRPA didn't bother making even superficial reference to the specific features and what justified banning them. Instead, it rendered a lengthy opinion upholding the bans without any substantive discussion of the features that allegedly make them dangerous and unusual.

To be sure, *NYSRPA* did invalidate Connecticut's ban on the Remington Tactical 7615 pump-action rifle, explaining:

Heller emphasizes that the "the Second Amendment extends, prima facie, to all instruments that constitute bearable arms." ... In other words, it identifies a presumption in favor of Second Amendment protection, which the State bears the initial burden of rebutting.... Because the State, focused on semiautomatic weapons ... has failed to make any argument that this pumpaction rifle is dangerous, unusual, or otherwise not within the ambit of Second Amendment protection, the presumption that the Amendment applies remains unrebutted. 92

The Second Circuit upheld the magazine bans under intermediate

384 / 420





scrutiny with one paragraph of discussion to the effect that such magazines are disproportionately used in crime. 93 It did not mention the overwhelming lawful use of standard magazines. That magazines holding over ten rounds are well-suited and preferred for self-defense is demonstrated by the fact that they are issued to law enforcement 94 and bought by law-abiding citizens, who also use them for target shooting, competitions, and other sporting activities. Both police and citizens need larger-capacity magazines because they are necessarily at a disadvantage during a planned attack by a criminal. They may run out of ammunition and may not be able to change magazines, if another one is even available.

Second, while upholding the ban on magazines holding more than ten rounds, it invalidated New York's ban on loading such magazines with more than seven rounds, for failure "to present evidence that the mere existence of this load limit will convince any would-be malefactors to load magazines capable of holding ten rounds with only the permissible seven."95 Yet the limit on magazines holding more than ten rounds cannot be expected to get much respect by these same malefactors.

While nothing in the act was held vague as applied to the plaintiffs who were potential criminal defendants, a different standard was applied when New York officials were sued for false arrest of a gun shop owner for alleged sale of "assault weapons." A police lieutenant and a technical sergeant advised gun stores that removal of offending features would remove a firearm from status of being an assault weapon. 96 For instance, a pin was

placed in a folding shoulder stock so that it would not fold. Other officers, however, claimed that the pin could be easily removed and thus the procedure was not permanent, and arrested a shop owner and employees. However, a grand jury voted "no true bill" to the proposed indictment, and the charges were dropped.

When the store owner sued for false arrest, the court accorded qualified immunity to the officers "in light of the substantial uncertainty as to the meaning and interpretation of §265.00(22)(a)," which defined the offending "assault weapon" features such as a folding stock. 97

Now that the D.C. and Second Circuits had upheld bans, the Seventh Circuit was next in line to join the leapfrog game.

The Seventh Circuit Decides Friedman

Cook County, Illinois, and a number of other Chicago-area localities define "assault weapon" to include some of the aforementioned features and names. But one feature is the opposite of or has no counterpart in other laws and ordinances. A semiautomatic rifle that has the capacity to accept a "large capacity magazine" is said to be an assault weapon if it has "only a pistol grip without a stock attached."98 In that configuration, the trigger hand grasps the pistol grip, but no shoulder stock is present to fire the rifle from the shoulder. By contrast, most jurisdictions outside of Illinois ban a





The Seventh Circuit erroneously asked whether the banned firearms were common in 1791 when the Second Amendment was adopted, Justice Thomas continued, but *Heller* recognized protection for bearable arms generally without regard to whether they existed at the Founding. ¹²³ The Seventh Circuit also asked whether the banned firearms relate to a well regulated militia, which states and localities would decide. But the scope of the Second Amendment "is defined not by what the militia needs, but by what private citizens commonly possess," and states and localities do not have "the power to decide which firearms people may possess." ¹²⁴

The dissenting justices argued that it did not suffice that other alternatives allegedly existed for self-defense. The ban was suspect because "[r]oughly five million Americans own AR-style semiautomatic rifles.... The overwhelming majority of citizens who own and use such rifles do so for lawful purposes, including self-defense and target shooting." Nor could the ban be upheld "based on conjecture that the public might *feel* safer (while being no safer at all)...." Declining to review a decision that flouted *Heller* and *McDonald*, according to Justice Thomas, contrasted with the Court's summary reversal of decisions that disregarded other constitutional precedents. 127

The Fourth Circuit Decides Kolbe

Maryland applies the term "assault weapon" to what it calls an "assault long gun," which includes a list of some sixty-eight rifles and shotguns identified mostly by the names of manufacturers and models, together with "copies" thereof. 128 The Maryland Attorney General opined that "a copy of a designated assault weapon must be similar in its internal components and function to the designated weapon. Cosmetic similarity to an enumerated assault weapon alone would not bring a weapon within the regulated firearms law." 129 That leaves open the question of how an ordinary person would know that a non-listed long gun she possesses is a copy of a listed long gun that she does not possess and of which she knows nothing.

Two listings warrant discussion. First, it includes "Colt AR-15, CAR-15, and all imitations except Colt AR-15 Sporter H-BAR rifle." Thus copies or imitations of the Colt AR-15 Sporter H-BAR rifle are not "assault weapons." A representative of the Maryland State Police (MSP) stated in litigation that "MSP does not have a specific definition based on barrel diameter or weight of when a firearm constitutes a heavy-barreled version of an AR-15 that is exempted from the ban as a copy of a Colt AR-15 Sporter H-BAR," and instead "relies on the manufacturer's designation of a firearm as an H-BAR or heavy-barreled version of an AR-15...."

See photo of the Colt AR-15 A2 HBAR Sporter Rifle in chapter 11.

Second, the listing includes a "Bushmaster semi-auto rifle" without regard to any specific model. Unlike any other manufacturer, the Bushmaster is blacklisted in any semi-auto rifle model. It cannot even offer

an exempt "copy" of an H-BAR rifle, as can any other manufacturer: "MSP determined that the more specific prohibition on all Bushmaster semiautomatic rifles governs over the more general exemption for copies of the Colt AR-15 Sporter H-BAR. Thus, MSP concluded that Bushmaster AR-15 H-BAR firearms are...banned assault long guns.... That determination relates exclusively to the Bushmaster H-BAR, and is based on the statute's unique treatment of Bushmaster semiautomatic rifles." 131

The term "assault weapon" also encompasses a "copycat weapon," which is defined generically as:

a semiautomatic centerfire rifle that can accept a detachable magazine and has any two of the following:

- 1. a folding stock;
- 2. a grenade launcher or flare launcher; or
- 3. a flash suppressor....¹³²

Given that flares are distress signals for emergencies, it is unclear why this feature was included. A folding stock does not make a rifle concealable and, in any event, gives it the profile of a very large pistol. A flash suppressor reduces blinding flash when firing in low light conditions, which could occur in home defense or hunting coyotes at night. A grenade launcher means nothing without a grenade, and both grenades and grenade launchers with barrels over a half inch in diameter are so strictly regulated by the National Firearms Act, which defines them as "destructive devices,"

as to be virtually banned. 133 No evidence exists that these features have ever played any role in facilitating a crime.

If this is the list of objectionable features, one is left to wonder why the specifically named models of assault long guns are objectionable. While most of those named appear to be semiautomatic centerfire rifles that can accept a detachable magazine, they need not have any of the listed generic features—that is, a folding stock, grenade or flare launcher, or flash suppressor. Moreover, this list of generic features is strikingly small compared to those of other jurisdictions, and it does not include the protruding pistol grip, either with or without a stock. This again illustrates the arbitrary and contradictory nature of the features that legislative bodies use to define the slippery term "assault weapon."

Maryland's ban was challenged in Kolbe v. Hogan. On appeal, a panel of the Fourth Circuit found that "law-abiding citizens commonly possess semi-automatic rifles such as the AR-15." 134 The court found Heller II's claim that such rifles may be banned because other weapons are available for home defense as "plainly contrary to the Supreme Court's logic and statements in Heller..." 135 Holding that the banned rifles and magazines are protected by the Second Amendment, the court remanded the case for further consideration under the exacting strict scrutiny standard. 136

However, in an en banc rehearing, a majority held that the banned firearms are not protected by the Second Amendment because they are "exceptionally lethal weapons of war" and that the AR-15 and other listed

firearms "are unquestionably most useful in military service." ¹³⁷ The court did not explain why, if such semiautomatic rifles are such "lethal weapons of war" and so "useful in military service," not a single military force in the world issues them as their service rifles. The court failed to cite a single country, even the poorest, that does so. Instead, every nation issues selective-fire rifles that can fire in fully automatic mode.

The court further claimed that "[t]he difference between the fully automatic and semiautomatic versions of those firearms is slight." 138 The court transposed Heller's reference to "M-16 rifles and the like" (which the Heller Court said are fully automatic and not in common use) to say that the banned rifles are "like" "M-16 rifles" that are not protected by the Second Amendment, 139

Instead of discussing the features of a copycat weapon as defined in the law at issue, the court dramatically singled out nine features, six of which aren't even listed in the statute: "flash suppressors, which are designed to help conceal a shooter's position by dispersing muzzle flash," "barrel shrouds, which enable 'spray-firing' by cooling the barrel and providing the shooter a 'convenient grip," "folding and telescoping stocks, pistol grips, grenade launchers, night sights, and the ability to accept bayonets and large-capacity magazines." 140 The court lists these "military combat features" in the opinion without providing any further explanation of how they make the banned firearms more "lethal" than other semiautomatic firearms. 141 Nor did the court explain how these firearms were

"exceptionally lethal" even though, due to the relatively small caliber of most "assault weapons," they are typically less powerful than hunting rifles routinely used across the nation to shoot deer and other medium-sized game. Most AR-15s shoot .223 caliber cartridges, which are exceptionally less lethal than cartridges like the .308 caliber round often used by deer hunters.

Kolbe acknowledged evidence that non-banned firearms are capable of penetrating soft body armor yet asserted that this is among the "militarystyle features" that support the ban. 142 But virtually $\it all$ rifle ammunition will penetrate soft body armor, which is why federal law defines "armor piercing ammunition" as a projectile for use in a handgun with certain metallic properties. 143 An AR-15 rifle is no better at piercing soft body armor than any other rifle of the same caliber.

Kolbe further concluded that, even if the banned firearms and magazines are entitled to Second Amendment protection, the ban was constitutional under intermediate scrutiny. 144

The court also rejected a vagueness challenge to the ban on the basis of the above attorney general's opinion narrowly interpreting "copy" to include only a firearm with interchangeable internal components. It rejected the argument "that the typical gun owner would not know whether the internal components of one firearm are interchangeable with the internal components of some other firearm" but offered no explanation of how such owner would know. 145



It seems incredible that judges who seem to know so little about firearms, such as by denying any significant difference between machine guns and semiautomatics, think that anyone would know whether the various intricate internal parts in two different firearms are interchangeable. Owners' manuals describe only enough basic disassembly of firearms for cleaning and warn that they should not be disassembled further. Typical gun owners have no clue what the internal parts in their own firearms look like, much less the parts in other firearms that they do not possess and may know nothing about.

The dissenting opinion by Judge William Traxler, joined by three other judges, emphasized Heller's holding that firearms in common use are protected by the Second Amendment. 146 The banned semiautomatic rifles overwhelmingly meet the common-use test, as over eight million were made in or imported into the U.S. during 1990-2012, and accounted for 20 percent of retail firearm sales in 2012. 147 Moreover, these semiautomatic rifles "are not in regular use by any military force, including the United States Army, whose standard-issue weapon has been the fully automatic M-16- and M-4-series rifles." ¹⁴⁸ Contrary to the majority's assertion that the difference is slight, a U.S. Army manual states that M4 and M16 rifles fire only forty-five to sixty-five rounds per minute in semiautomatic mode but fire 150 to 200 rounds per minute in fully automatic. 149

As noted, the Kolbe majority barely mentioned in passing what it (wrongly) supposed to be the features of the banned rifles and offered virtually no comment on why those features are supposedly dangerous. ¹⁵⁰ As the dissent explained, these features "increase accuracy and improve ergonomics." 151 In particular:

A telescoping stock, for example, permits the operator to adjust the length of the stock according to his or her physical size so that the rifle can be held comfortably.... Likewise, a pistol grip provides comfort, stability, and accuracy,...and barrel shrouds keep the operator from burning himself or herself upon contact with the barrel. And although flash suppressors can indeed conceal a shooter's position-which is also an advantage for someone defending his or her home at night—they serve the primary function of preventing the shooter from being blinded in low-lighting conditions. 152

The dissent would have held that the banned rifles are commonly possessed arms protected by the Second Amendment. It added, "Once it is determined that a given weapon is covered by the Second Amendment, then obviously the in-home possession of that weapon for self-defense is core Second Amendment conduct and strict scrutiny must apply to a law that prohibits it." 153 (The dissent did not discuss the Heller test of text, history, and tradition.) The dissent put the majority opinion in perspective:

Today the majority holds that the Government can take

(

semiautomatic rifles away from law-abiding American citizens....
[T]he Government can now tell you that you cannot hunt with these rifles. The Government can tell you that you cannot shoot at targets with them. And, most importantly, the Government can tell you that you cannot use them to defend yourself and your family in your home. In concluding that the Second Amendment does not even apply, the majority has gone to greater lengths than any other court to eviscerate the constitutionally guaranteed right to keep and bear arms. ¹⁵⁴

The Fourth Circuit rejected a subsequent challenge to Maryland's "assault weapon" ban based on *Kolbe*. But the Supreme Court granted a petition for a writ of certiorari, vacated the judgment, and remanded the case to the Fourth Circuit for further consideration in light of *New York State Rifle & Pistol Assn., Inc. v. Bruen* (2022). 155 *Bruen*, of course, reaffirmed the common-use test and condemned intermediate scrutiny. *Kolbe* said that it did not need to consider common use and relied, in part, on intermediate scrutiny. Will the Fourth Circuit find a way to avoid *Bruen*?

The First Circuit's Decision in Worman

In 1998, Massachusetts banned "assault weapons," adopting the federal

definitions verbatim. 156 It also restricted "large capacity weapons," defined in part as any firearm (handgun), rifle, or shotgun "that is semiautomatic and capable of accepting, or readily modifiable to accept, any detachable large capacity feeding device." 157 A "large capacity feeding device" includes a "device capable of accepting...more than 10 rounds of ammunition or more than five shotgun shells." 158 Mere possession of a banned firearm or magazine is punishable by imprisonment for $2\frac{1}{2}$ to 10 years. 159

In 2016, without any change in the statute, Attorney General Maura Healey issued an enforcement notice expanding the meaning of "copies or duplicates" of the listed firearms to include firearms in which (a) the "internal functional components are substantially similar" to a listed firearm, or (b) the receiver "is the same as or interchangeable with" that of a listed firearm. ¹⁶⁰ This was a far cry from the explicitly listed features.

Daniel Bennett, secretary of public safety and security for Massachusetts, observed that many, if not all, semiautomatic pistols and rifles have "operating systems and firing mechanisms" that are "based on or otherwise substantially similar" to listed assault weapons. The SWD M-11, which is on the list, has a spring-loaded detachable magazine, fires centerfire cartridges, and has an ejection port on its right-hand side. But so does the M1911 pistol. ¹⁶¹

The "interchangeability test" applied to just two interchangeable parts, such as a trigger or charging handle, goes far beyond the statutory

395-396 / 420

EXHIBIT 4

ROBB ELEMENTARY SCHOOL

Texas House of Representatives Investigative Committee on the Robb Elementary Shooting

Representative Dustin Burrows, Chair Representative Joe Moody, Vice Chair The Honorable Eva Guzman, Member



HOUSE INVESTIGATIVE COMMITTEE ON THE ROBB ELEMENTARY SHOOTING TEXAS HOUSE OF REPRESENTATIVES INTERIM REPORT 2022

A REPORT TO THE HOUSE OF REPRESENTATIVES 88TH TEXAS LEGISLATURE

> DUSTIN BURROWS CHAIR

COMMITTEE CLERK PAIGE HIGERD



Investigative Committee On the Robb Elementary Shooting

July 17, 2022

Dustin Burrows Chair P.O. Box 2910 Austin, Texas 78768-2910

The Honorable Dade Phelan Speaker, Texas House of Representatives Members of the Texas House of Representatives Texas State Capitol, Rm. 2W.13 Austin, Texas 78701

Dear Mr. Speaker and Fellow Members:

The Investigative Committee on the Robb Elementary Shooting of the Eighty-seventh Legislature hereby submits its interim report for your consideration.

Respectfully submitted,

Rep. Dustin Burrows

Rep. Joe Moody

Justice Eva Guzman

TABLE OF CONTENTS

| Preface | 1 |
|---|----|
| Acknowledgments | 1 |
| Dedication | 1 |
| 1 Introduction & Executive Summary | 5 |
| The School | |
| The Responders | |
| 2 Background & History of Investigation | |
| 3 Robb Elementary School Security & Facilities Overview | |
| Uvalde CISD Police Department | |
| Active Shooter Plan | |
| ALERRT Standard for Active Shooter Training | 17 |
| Rise of "Bailout" Security Incidents | |
| Raptor Alert System | 23 |
| Uvalde CISD Facilities & Maintenance | 24 |
| Robb Elementary Facilities & Management | 24 |
| Policies for Locking Doors | 25 |
| Maintenance of Doors & Keys | 27 |
| 4 The Attacker | 29 |
| Family & Early Life | 29 |
| School | 30 |
| The Year Before | |
| The Last Days | 34 |
| 5 May 24 Incident & Law Enforcement Response | 39 |
| Coach Silva Alerts the School | 41 |
| Law Enforcement Responds to Robb Elementary | |
| Robb Elementary School Locks Down | 44 |
| The Attacker Enters the West Building | 40 |
| The Attacker Enters Rooms 111 & 112 | 40 |
| First Law Enforcement Approaches & Enters | 48 |
| What Happened for the Next 73 Minutes? | 52 |
| On the South | 52 |
| On the North | 58 |
| On the Outside | |
| What Didn't Happen in Those 73 Minutes? | 62 |
| Law Enforcement Responder Headcount | 64 |
| 6 Information Flow | 66 |
| The First Reports | 66 |
| ALERRT Report | 67 |
| Video Evidence | 68 |
| Compromised Trust | 69 |
| 7 Factual Conclusions | 70 |

PREFACE

This is the interim report of the Investigative Committee on the Robb Elementary Shooting of the Texas House of Representatives.

Conscious of the desire of the Uvalde community and the public at large to receive an accurate account of the tragedy at Robb Elementary School, the Committee has worked diligently and with care to issue this interim report of its factual findings. The Committee's work is not complete. We do not have access to all material witnesses. Medical examiners have not yet issued any reports about their findings, and multiple other investigations remain ongoing. The Committee believes this interim report constitutes the most complete telling to date of the events of and leading to the May 24, 2022, tragedy.

This Committee has prioritized factual accuracy, as will be evident from our attention to conducting our own interviews and documenting our sources of information. Still, based on the experiences of past mass-shooting events, we understand some aspects of these interim findings may be disputed or disproven in the future.

The Committee issues this interim report now, believing the victims, their families, and the entire Uvalde community have already waited too long for answers and transparency.

ACKNOWLEDGMENTS

The Committee gratefully acknowledges the assistance of all who helped with its investigation and the preparation of this interim report, including Clement Abbondandolo, Margo Cardwell, Courtney Chaplin, Matthew Crow, Casey Garrett, Harrison Garrett, Paige Higerd, Ted Liggett, Michael Massengale, Kolton McDougald, and Ellic Sahualla.

DEDICATION

The Committee submits this report with great humility and the deepest respect for the victims and their families. It is the Committee's sincere hope that this brings some clarity for them as to the facts that happened. This report is meant to honor them.

You will notice the name of the attacker is not mentioned. We also will not use his image, so as not to glorify him.

Nevaeh Alyssa Bravo

Nevaeh is remembered as a playful girl who put a smile on the faces of everyone around her. Her family meant the world to her, and she often helped her father around the house. Nevaeh loved the colors pink and purple and enjoyed playing softball and riding her bike.

Jacklyn "Jackie" Jaylen Cazares

Jackie is rememb<mark>ere</mark>d as a caring girl who enjoyed singing and making TikTok videos. Jackie loved animals (especially her four dogs) and wanted to become a veterinarian; she also dreamt of visiting Paris. Jackie was known as someone who would go out of her way to help anyone.

Makenna Lee Elrod

Makenna is remembered as the light in the lives of those who knew her. She loved the color purple, softball and gymnastics, and spending time with her family—especially time on the ranch with her dad. Her smile lit up rooms, and she liked to leave hidden notes for her family to find.

SCHOJose Manuel Flores, Jr.

Jose is remembered as loving and kind. He was an honor roll student who wanted to be a police officer when he grew up to help protect other people. Jose was an amazing big brother who looked out for his siblings, and his parents called him "a helper" because he was always pitching in at home.

Eliahna "Ellie" Amyah Garcia

Ellie is remembered as a gentle, kindhearted girl who loved spending time with her family and was very close with her grandparents. She enjoyed playing basketball and wanted to be a cheerleader one day. Ellie adored the colors pink and purple and loved a nice bowl of ramen noodles. She was a long-term planner who was already picking dresses and dances for her quinceañera five years away.

<mark>I</mark>rma Garcia

Irma is remembered as courageous and selfless—a wife and mother of four who was always willing to lend a helping hand to anyone who needed one. She was a 23-year teacher. Irma died protecting her students, and her heroism will be remembered forever.

Uziyah Sergio Garcia

Uziyah is remembered as an outgoing boy who loved his family as well as his "cousins and brothers from another mother." He was always fair and full of life, and he enjoyed running, swimming, football, and playing his Nintendo Switch and Oculus.

Amerie Jo Garza

Amerie is remembered as considerate and fun-loving. She was protective of her three-year-old brother and would kiss him every morning before she went to school. Amerie loved swimming, drawing, and vanilla bean frappés from Starbucks. She dreamt of becoming an art teacher one day.

Xavier James Lopez

Xavier is remembered as an active boy who loved swimming and playing little league baseball for his team, the Blue Jays. He was lively, energetic, and always eager to dance, especially the cumbia with his grandmother. Xavier was known for wearing stylish clothes and had a smile that could cheer anyone up.

Jayce Carmelo Luevanos

Jayce is remembered as a happy, thoughtful boy with many friends who always seemed to be running around his yard with him. He made his grandparents a pot of coffee every morning and would leave notes saying that he loved them. Dinosaurs were one of his favorite things.

Tess Marie Mata

Tess is remembered as a natural athlete who enjoyed softball, soccer, and gymnastics—she especially loved doing backbends in gymnastics. Tess was a fan of the Houston Astros and even played the same position as her favorite player, José Altuve, in softball. She was saving up money for a family vacation to Disney World.

Maranda Gail Mathis

Maranda is remembered as smart and nice, a shy tomboy who loved the color purple, especially when it was on unicorns and mermaids. Maranda also enjoyed spending time outdoors and had an incredible imagination.

Eva Mireles

Eva is remembered as dedicated and vibrant. She enjoyed CrossFit, hiking, spending time with her dog, Kane, and being with her family. Her smile was bright and her commitment to her students was still unwavering after 17 years as an educator. She was a hero who never gave up throughout an impossible ordeal.

Alithia Haven Ramirez

Alithia is remembered as talented and bighearted. She was a gifted artist who wanted to go to art school in Paris one day. She was also a mature role model to her siblings and was always thoughtful about helping those in need.

Annabell Guadalupe Rodriguez

Annabell is remembered as empathetic and loyal. She enjoyed spending time with her sisters and watching TikToks. Her favorite color was blue—especially blue found on butterflies. Annabell was on the honor roll and known for being a sharp student.

Maite Yuleana Rodriguez

Maite is remembered as sweet and competitive. She loved learning about animals and the ocean, especially dolphins, whales, and dogs. She was an honor student who dreamt of attending Texas A&M to become a marine biologist. Her favorite color was green, and she enjoyed a #13 from Whataburger—always with a side of sliced jalapenos.

Alexandria "Lexi" Aniyah Rubio

Lexi is remembered as intelligent and driven. She had a contagious smile and enjoyed playing softball and basketball, which she excelled at. Lexi was an all-A student who wanted to become a lawyer one day, and she was interested in social and political issues because she wanted to make a difference.

Layla Marie Salazar

Layla is remembered as witty and lively. She loved singing with her parents while coming to and from school and going with her grandparents for tacos. She was also an avid swimmer, dancer, and runner who'd won six races at a recent field day.

Jailah Nicole Silguero

Jailah is remembered as a joy to be around, a pure delight who enjoyed making TikToks to show off to her family and friends. Jailah was always dancing and liked to spend time outdoors as well.

Eliahna Torres

Eliahna is remembered as loving and compassionate. She enjoyed making other people laugh and was a "master of jests." She was also an amazing softball player up for a spot on the city's all-star team. Eliahna was a natural leader who was also known for her warmth and selflessness.

Rojelio Fernandez Torres

Rojelio is remembered as a clever, positive boy who enjoyed being outdoors in his free time as well as playing football and videogames like Pokémon. Rojelio was always eager to help others and had a real love for life.

1 | Introduction & Executive Summary

There is nothing we can do to heal the wounds suffered by the Uvalde community, nothing that can redress the loss of 21 souls stolen from their families and friends. We must critically examine the contributing factors to the horrific massacre at Robb Elementary School to try to provide answers and prevent similar tragedies in the future. A safer environment for all Texas children is one of the ways we can honor the memory of the students and teachers murdered in Uvalde.

Across our state, men and women who work in the fields of education and law enforcement exemplify both service and sacrifice. Teachers dedicate themselves to the betterment of society through the promise of a new generation. Police officers see danger and run to meet it, knowing the cost and stepping forward to pay it. In pursuing these high callings, teachers and police officers live in the public square—nurturing, encouraging, protecting, preserving. They render this service on behalf of us all, but especially for children, who are the most innocent and vulnerable among us. Like the rest of us, educators and law enforcement officers sometimes fail at crucial moments. When they do, that does not diminish the good work and sacrificial service of their professions as a whole.

Of necessity, this report will describe shortcomings and failures of the Uvalde Consolidated Independent School District and of various agencies and officers of law enforcement. At the outset, we acknowledge that those same shortcomings could be found throughout the State of Texas. We must not delude ourselves into a false sense of security by believing that "this would not happen where we live." The people of Uvalde undoubtedly felt the same way. We must all take seriously the threats to security in our schools and the need to be properly prepared to confront active shooter scenarios.

Other than the attacker, the Committee did not find any "villains" in the course of its investigation. There is no one to whom we can attribute malice or ill motives. Instead, we found systemic failures and egregiously poor decision making. We recognize that the impact of this tragedy is felt most profoundly by the people of Uvalde in ways we cannot fully comprehend.

The School

With hindsight we can say that Robb Elementary did not adequately prepare for the risk of an armed intruder on campus.

The school's five-foot tall exterior fence was inadequate to meaningfully impede an intruder. While the school had adopted security policies to lock exterior doors and internal classroom

doors, there was a regrettable culture of noncompliance by school personnel who frequently propped doors open and deliberately circumvented locks. At a minimum, school administrators and school district police tacitly condoned this behavior as they were aware of these unsafe practices and did not treat them as serious infractions requiring immediate correction. In fact, the school actually suggested circumventing the locks as a solution for the convenience of substitute teachers and others who lacked their own keys.

The school district did not treat the maintenance of doors and locks with appropriate urgency. In particular, staff and students widely knew the door to one of the victimized classrooms, Room 111, was ordinarily unsecured and accessible. Room 111 could be locked, but an extra effort was required to make sure the latch engaged. Many knew Room 111's door had a faulty lock, and school district police had specifically warned the teacher about it. The problem with locking the door had been reported to school administration, yet no one placed a written work order for a repair.

Another factor contributing to relaxed vigilance on campus was the frequency of security alerts and campus lockdowns resulting from a recent rise of "bailouts"—the term used in border communities for the increasingly frequent occurrence of human traffickers trying to outrun the police, usually ending with the smuggler crashing the vehicle and the passengers fleeing in all directions. The frequency of these "bailout"-related alarms—around 50 of them between February and May of 2022—contributed to a diminished sense of vigilance about responding to security alerts.

Other factors delayed the reporting of the threat to the campus and to law enforcement. Low-quality internet service, poor mobile phone coverage, and varying habits of mobile phone usage at the school all led to inconsistent receipt of the lockdown notice by teachers. If the alert had reached more teachers sooner, it is likely that more could have been done to protect them and their students.

In violation of school policy, no one had locked any of the three exterior doors to the west building of Robb Elementary. As a result, the attacker had unimpeded access to enter. Once inside, the attacker continued into the adjoining Rooms 111 and 112, probably through the door to Room 111, and apparently completely unimpeded. Locking the exterior and interior doors ultimately may not have been enough to stop the attacker from entering the building and classrooms. But had school personnel locked the doors as the school's policy required, that could have slowed his progress for a few precious minutes—long enough to receive alerts, hide children, and lock doors; and long enough to give police more opportunity to engage and stop the attacker before he could massacre 19 students and two teachers.

Because of these failures of facilities maintenance and advance preparation, the attacker fired most of his shots and likely murdered most of his innocent victims before any responder set foot in the building. Of the approximately 142 rounds the attacker fired inside the building, it is almost certain that he rapidly fired over 100 of those rounds before any officer entered.

The Responders

Since the 1999 Columbine tragedy, the law enforcement community has recognized the critical importance of implementing active shooter training for all officers, regardless of specialty. Also, all officers must now acknowledge that stopping the killing of innocent lives is the highest priority in active shooter response, and all officers must be willing to risk their lives without hesitation.

At Robb Elementary, law enforcement responders failed to adhere to their active shooter training, and they failed to prioritize saving the lives of innocent victims over their own safety.

The first wave of responders to arrive included the chief of the school district police and the commander of the Uvalde Police Department SWAT team. Despite the immediate presence of local law enforcement leaders, there was an unacceptably long period of time before officers breached the classroom, neutralized the attacker, and began rescue efforts. We do not know at this time whether responders could have saved more lives by shortening that delay. Regardless, law enforcement committed numerous mistakes in violation of current active shooter training, and there are important lessons to be learned from each faulty assumption and poor decision made that day.

The Uvalde CISD's written active shooter plan directed its police chief to assume command and control of the response to an active shooter. The chief of police was one of the first responders on the scene. But as events unfolded, he failed to perform or to transfer to another person the role of incident commander. This was an essential duty he had assigned to himself in the plan mentioned above, yet it was not effectively performed by anyone. The void of leadership could have contributed to the loss of life as injured victims waited over an hour for help, and the attacker continued to sporadically fire his weapon.

A command post could have transformed chaos into order, including the deliberate assignment of tasks and the flow of the information necessary to inform critical decision making. Notably, nobody ensured that responders making key decisions inside the building received information that students and teachers had survived the initial burst of gunfire, were trapped in Rooms 111 and 112, and had called out for help. Some responders outside and inside the building knew that information through radio communications. But nobody in

command analyzed this information to recognize that the attacker was preventing critically injured victims from obtaining medical care. Instead of continuing to act as if they were addressing a barricaded subject scenario in which responders had time on their side, they should have reassessed the scenario as one involving an active shooter. Correcting this error should have sparked greater urgency to immediately breach the classroom by any possible means, to subdue the attacker, and to deliver immediate aid to surviving victims. Recognition of an active shooter scenario also should have prompted responders to prioritize the rescue of innocent victims over the precious time wasted in a search for door keys and shields to enhance the safety of law enforcement responders.

An effective incident commander located away from the drama unfolding inside the building would have realized that radios were mostly ineffective, and that responders needed other lines of communication to communicate important information like the victims' phone calls from inside the classrooms. An offsite overall incident commander likely could have located a master key more quickly—several people on campus had one. An offsite overall incident commander may have suggested checking to see if officers could open the door without a key—in hindsight, they probably could have. An offsite overall incident commander who properly categorized the crisis as an active shooter scenario should have urged using other secondary means to breach the classroom, such as using a sledgehammer as suggested in active shooter training or entering through the exterior windows.

Uvalde CISD and its police department failed to implement their active shooter plan and failed to exercise command and control of law enforcement responding to the tragedy. But these local officials were not the only ones expected to supply the leadership needed during this tragedy.

Hundreds of responders from numerous law enforcement agencies—many of whom were better trained and better equipped than the school district police—quickly arrived on the scene. Those other responders, who also had received training on active shooter response and the interrelation of law enforcement agencies, could have helped to address the unfolding chaos.

Yet in this crisis, no responder seized the initiative to establish an incident command post. Despite an obvious atmosphere of chaos, the ranking officers of other responding agencies did not approach the Uvalde CISD chief of police or anyone else perceived to be in command to point out the lack of and need for a command post, or to offer that specific assistance. Several will suggest they were misled by false or misleading information they received as they arrived; however, the "chaos" described by almost all of them demonstrates that at a

minimum, responders should have asked more questions. This suggests a training deficiency, in that responding officers failed to adequately question the absence of command. Other responders failed to be sufficiently assertive by identifying the incident commander and offering their assistance or guidance, or by assuming command in the absence of any other responder having expressly done so. In this sense, the entirety of law enforcement and its training, preparation, and response shares systemic responsibility for many missed opportunities on that tragic day.

2 | BACKGROUND & HISTORY OF INVESTIGATION

On June 3, 2022, Speaker of the Texas House of Representatives Dade Phelan created by proclamation the Investigative Committee on the Robb Elementary Shooting, pursuant to Rule 1, Section 17, and Rule 4, Sections 57 and 58, of the Rules of the House of Representatives. Three members were appointed to the Committee: Representative Dustin Burrows, Chair; Representative Joe Moody, Vice-Chair; and the Honorable Eva Guzman, Public Member. The Speaker gave the Committee the same authority and duties conferred on standing committees under the rules, and the Committee is set to expire on the date the 88th Legislature convenes.

Speaker Phelan charged the Committee with the duty to "conduct all inquiries into the actions of any State or local officer, employee, department, agency, institution, or instrumentality and any political subdivision needed to make a complete and thorough examination of the facts and circumstances of the events relating to the violent acts, shootings, and murders at Robb Elementary School in Uvalde." In the conduct of its investigation, the Speaker charged the Committee to "examine the evidence developed by all law enforcement authorities" and to "acquire and analyze additional evidence as needed to make comprehensive findings." The Committee has the additional duty of providing assistance to the Select Committee on Youth Health and Safety and the Committee on Homeland Security and Public Safety in the consideration of their joint charges on mass violence prevention and community safety. This Committee "shall submit a final report in the same manner as an interim study committee under Rule 4, Section 61, Rules of the House of Representatives."

Put more simply, this is a fact-finding committee. The Speaker has tasked other legislative committees with the difficult but critical responsibility of proposing policy in response to the tragedy at Robb Elementary School.

The Committee held its first meeting on June 9, 2022, in Austin, Texas. In an extensive briefing in executive session, Col. Steven C. McCraw, Director of the Texas Department of Public Safety, provided the Committee an overview of the status of the ongoing DPS investigation, including the attacker's background, the incident timeline, and the response by law enforcement. The Committee reviewed a composite video recording of the attacker's approach to the school and law enforcement's response. The meeting concluded with DPS agreeing to provide its evidence to the Committee.

The Committee then heard three days of testimony on June 16th, 17th, and 20th in Uvalde, Texas. Testifying witnesses included employees of the Uvalde CISD (including Robb

Elementary School staff), the Uvalde CISD Police Department, the Uvalde Police Department, the Department of Public Safety, and members of the attacker's family. On June 17th, all three members of the Committee visited the Robb Elementary School campus accompanied by Uvalde CISD Superintendent Dr. Hal Harrell, and the Committee paid its respects to the victims and to the community by laying a floral wreath at the school memorial.

Uvalde CISD Police Chief Pete Arredondo testified before the Committee in Austin, Texas, on June 21st followed by Sgt. Thomas Calabro with the Houston Police Department, who provided information about training and standard practices for law enforcement responses to active shooter scenarios and for the command and coordination of multiple responding law enforcement agencies.

The Committee returned to Uvalde on June 29th and 30th. On June 29th, the Committee interviewed Uvalde Mayor Don McLaughlin, four Robb Elementary School fourth grade teachers, and five employees of the Uvalde Police Department, including a dispatcher. The next day, June 30th, the Committee interviewed Uvalde CISD employee Becky Reinhardt, Uvalde County Precinct One Constable Johnny Field (by videoconference), and two peace officers who responded to the incident from the Department of Public Safety (a special agent and a lieutenant). That day, the Committee's investigators also interviewed Robb Elementary School teacher Arnulfo Reyes, the teacher in Room 111 who is still recovering from his injuries. The Committee received a report and an audio recording of the interview of Mr. Reyes.

On July 11th, the Committee reconvened in Austin to interview ALERRT Assistant Director John Curnutt and Uvalde County Sheriff Ruben Nolasco, both by videoconference. The Committee also conducted a follow-up interview of DPS Director McCraw.

The Committee interviewed all 35 witnesses in executive session, meaning that the sessions were closed to the public. Despite public expressions of frustration and even criticism that these meetings were conducted behind closed doors, the Committee is confident that its method served the goal of an objective fact-finding process. The Committee was able to engage witnesses in candid discussions that may not have been possible in public hearings or other settings.

In addition to the witnesses who appeared before the Committee in executive session, the Committee's investigators conducted at least 39 independent informal interviews, The Committee and its investigators have reviewed hundreds of crime-scene photos and dozens of audio and video recordings from the incident, including surveillance camera footage, mobile-phone video, 911 calls, radio transmissions, and body-worn camera footage. They reviewed recordings and summaries of witness interviews conducted and recorded by law

enforcement agencies. Documentation received from the Department of Public Safety and reviewed by the Committee included an enormous trove of digital evidence, including data from mobile phones, cloud storage, and social media messages. The Committee received and reviewed thousands of pages of documents received from numerous agencies including ALERRT, ATF, Texas DPS, FBI, Texas School Safety Center, and Uvalde CISD. These documents included school audits and safety plans, school disciplinary records, employment records, criminal-history reports, dispatch logs, ballistics reports, firearms traces, gun store records, information about the victims, and various diagrams, sketches, and timelines. The Committee also invited and received suggestions from witnesses about how to improve policies relating to school safety, firearm safety, law enforcement training and resources, and active shooter response. The Committee genuinely appreciates the input from all witnesses, and it will be shared with the House committees formed to evaluate and propose policies to address mass violence prevention and community safety.

3 | ROBB ELEMENTARY SCHOOL SECURITY & FACILITIES OVERVIEW

The Committee has great respect for teachers and all who dedicate their lives to the education of children.

As of the fall of 2020, there were 5,371,586 students in Texas schools. There are 1,204 school systems, most of which are independent school districts. The largest independent school district in Texas is in Houston, with 196,943 students enrolled for the 2020–21 school year. The smallest district is San Vicente ISD, which had five students for 2020–21.

Most school districts have multiple campuses with multiple buildings. It is estimated that there could be as many as 80,000 buildings in the State of Texas that house children at various times during the school year. These are important facts to remember in the context of discussing policy related to school-hardening measures.

Uvalde CISD serves a rural community of 15,217 citizens.² The district's schools include Uvalde High School, Morales Junior High, Anthon, Flores, Robb, and Dalton elementary schools, and several alternative education programs.³ The campus buildings range from over 100 years in age to the newest school, Uvalde High School, which was opened nearly four decades ago in 1983.⁴ Uvalde CISD constructed many of those older buildings during times when the potential threats to students were much different than those faced today.⁵ While no school could ever be built to prevent every conceivable threat, they can be built and operated in ways to better mitigate risk and impede potential threats from outside attackers.

Uvalde CISD Police Department

Until recently, the Uvalde Police Department was responsible for security in the Uvalde public schools. In 2018, Uvalde CISD established its own police department, headquartered at Uvalde High School. With nine different schools and a budget for six police officers, Uvalde CISD oversees more campuses than it has officers, and it has assigned no officer specifically to Robb Elementary. Instead, officers would regularly visit the Robb campus for a walk-through several

¹ Source: Texas Education Agency.

² 2020 Census, https://data.census.gov/cedsci/all?q=Uvalde%20city,%20Texas.

³ See generally <u>www.ucisd.net</u>.

⁴ Committee testimony of Rodney Harrison, UCISD Maintenance and Operations Director (June 16, 2022).

⁵ Committee testimony of Dr. Hal Harrell, Uvalde CISD superintendent (June 16, 2022).

times per week, usually lasting from 15–45 minutes.⁶ Uvalde CISD Police Chief Pete Arredondo and his second-in-command, Lt. Mike Hernandez, also testified that they visited campuses and walked halls to "rattle doors" to confirm they were locked.⁷

Uvalde CISD police officers commonly carried two radios: one for the school district, and another "police radio" which transmitted communications from various local law enforcement agencies. While the school district radios tended to work reliably, the police radios worked more intermittently depending on where they were used.⁸

Active Shooter Plan

As directed by state legislation enacted in 2019,⁹ Uvalde CISD adopted a policy for responding to an active shooter emergency. And Uvalde CISD deserves credit for having done so—they are one of the few Texas school districts recognized by the School Safety Center as having submitted a viable active shooter policy.¹⁰

Uvalde CISD Police Chief Arredondo and Director of Student Services Kenneth Mueller prepared a document titled "Annex 1 Active Shooter" and adopted it on April 15, 2020. The document identified its purpose as seeking to "outline the local organization, operational concepts, responsibilities, and procedures to accomplish coordinated Administration,

⁶ Committee testimony of Mandy Gutierrez, Robb Elementary Principal (June 16, 2022) (couple times per week, approximately 15 minutes per visit); *see also* Committee testimony of Adrian Gonzalez, Uvalde CISD police officer (June 20, 2022) (usually took 30-45 minutes to walk Robb Elementary); Committee testimony of Jaime Perez, Robb Elementary head custodian (June 16, 2022) (about once per day, usually for less than an hour unless dealing with a problem); Committee testimony of Kenneth Mueller (June 16, 2022) (officers would float, visiting all elementary-school campuses). Uvalde CISD police officer Ruby Gonzalez described how she and her colleagues would rotate shifts based at the high school. The 7:00 a.m.—4:00 p.m. shift would begin with traffic control and watching the courtyard at the high school, followed by rounds to check in at other campuses, walk halls, and check doors. Similarly, the officer working the 9:00 a.m.—6:00 p.m. shift would visit various campuses in the afternoon. Committee testimony of Ruby Gonzalez, Uvalde CISD police officer (June 17, 2022).

⁷ Testimony of Pete Arredondo, USCID police chief (June 21, 2022); Testimony of Lt. Mike Hernandez, Uvalde CISD Police (June 17, 2022).

⁸ Committee testimony of Adrian Gonzalez, UCISD police officer (June 20, 2022).

⁹ Tex. H.B. 2195, § 1, 86th Leg., R.S. (2019) ("A school district shall include in its multihazard emergency operations plan a policy for responding to an active shooter emergency. The school district may use any available community resources in developing the policy described by this subsection."), codified as Tex. Educ. Code § 37.108.

¹⁰ Cf. Texas School Safety Center, 2017-2020 DAR Report: Findings on Safety and Security in Texas School Districts, available at https://txssc.txstate.edu/research/technical-reports/dar-2020/ ("[T]he EOP review indicated that of the 1,022 districts reviewed, only 200 had a viable active shooter policy. Of the remaining 822 districts, 626 districts did not have a policy in place and 196 districts had an insufficient policy.").

¹¹ See Uvalde Consolidated ISD, Annex 1: Active Shooter ¶ I ("The Uvalde CISD police department along with the Director of Student Services makes recommendations and creates plans to develop a safe environment and to lead the District to Mitigate, Prevent, Prepare, Respond, and Recover from potential active shooter situations.").

Teachers, District police officers, local law enforcement and first responders to Prevent, Prepare, Respond, and Recover from the possibility of an active shooter entering any of the District campuses."¹²

The plan called for utilization of "the National Incident Management System (NIMS) during an emergency to coordinate response efforts." It further stated that "[t]he District's police officers, administrators, and teachers and support staff, along with the students have the daily responsibility to mitigate and prevent an active shooter situation," and that "[a]ll staff members and student[s] will know the proper procedures to follow if a suspected shooter is on the campus."

With respect to securing doors, the active shooter policy stated:

Staff will conduct inspections of classrooms to make sure doors and windows can be securedDoors to all classrooms will remain locked during instruction and the campuses will have one main entry point to the school. *Each staff member will know the procedures to follow in order to have any door or window repaired that will not lock.* ¹⁵

The active shooter policy outlined a series of preventative safety measures that served as the "primary preventative strategy" to address "problems of violence, vandalism, disruptions and fear." As applicable to Robb Elementary, these preventative measures included:

POLICE OFFICERS – The district employs 4 officers. This includes a Chief, a detective, and two officers. ¹⁷

PARTNERSHIPS WITH LOCAL LAW ENFORCEMENT. Local law enforcement agencies are invited to come to any of our campuses while they are on patrol. UCISD provides free breakfast or lunch to any law enforcement personnel visiting our campuses.¹⁸

THREAT ASSESSMENT TEAMS – Every campus employs an interdisciplinary team of trained professionals that convene to identify, evaluate, classify and address threats or potential threats to school security. Following assessment, this team determines

¹² *Id*. ¶ II.

¹³ *Id.* ¶ IV.A.1; *see also id.* ¶ V.B ("All personnel assigned responsibilities in this plan are trained on NIMS concepts, procedures and protocols."). Regarding NIMS, the, training that defines operational systems that guide how personnel work together to prevent, protect against, mitigate, respond to and recover from incidents see generally https://training.fema.gov/nims/.

¹⁴ Uvalde Consolidated ISD, *Annex 1: Active Shooter* ¶ IV.A.2.

¹⁵ *Id.* ¶ IV.B.1.b (emphasis supplied).

¹⁶ *Id.* ¶ IV.B.2.a.

¹⁷ *Id.* ¶ IV.B.2.b. Uvalde CISD later hired two additional officers to bring its total force to six, though at the time of the attack on Robb Elementary there were only five officers employed.

¹⁸ *Id.* ¶ IV.B.2.c.

appropriate response and intervention. This includes notification and involvement of parents, a suicide risk assessment, and the development of a written safety plan.¹⁹

SOCIAL MEDIA THREATS – UCISD utilizes Social Sentinel to monitor all social media with a connection to Uvalde as a measure to identify any possible threats that might be made against students and or staff within the school district.²⁰

PERIMETER FENCING – Dalton, Anthon, and Robb have fencing that encloses the campus is designed to limit [sii] and/or restrict access to individuals without a need to be on the campus.²¹

RADIOS – Key staff have been provided radios to support campus communication processes.²²

LOCKED CLASSROOM DOOR POLICY – Teachers are instructed to keep their classroom doors closed and locked at all times. Barriers are not to be used. Substitutes shall follow the same policy, with campuses ensuring they have access to the classrooms they need throughout the day. The Standard Response Protocol procedures are on the back of all of our badges issued to substitute teachers.²³

STAFF TRAINING – All staff members are trained annually in emergency protocols for the campus. Key campus personnel are CPI-trained.²⁴

STUDENT TRAINING & DRILLS – Students receive training on the Standard Response Protocol for lockout, lockdown, evacuate, shelter, and hold. In addition, drills are held for each of these emergency actions on a regular basis²⁵

THREAT REPORTING SYSTEM – Students, parents, staff, and community members are encouraged to share information with us that is deemed troubling, so that we may take appropriate action. This includes information about weapons, threats, fights, drugs, self-harm, suicide or disclosures made that are concerning. Reports may be made online at ucisd.net, by contacting any campus administrator, district administrator or UCISD Police Officers.²⁶

In the event of an active shooter incident, the policy expressly provided that upon verification of an active shooter, "the District police department Chief will become the person in control of the efforts of all law enforcement and first responders that arrive at the scene."²⁷ The response was to include, if possible, "secur[ing] the administration office as a command post

¹⁹ *Id.* ¶ IV.B.2.g.

²⁰ *Id.* ¶ IV.B.2.g.

²¹ *Id.* ¶ IV.B.2.l. The Uvalde CISD director of maintenance and operations, Rodney Harrison, confirmed for the Committee that the fence around Robb Elementary was five feet high.

²² *Id.* ¶ IV.B.2.p.

²³ *Id.* ¶ IV.B.2.r.

²⁴ Id. ¶ IV.B.2.s. "CPI" refers to the Crisis Prevention Institute, an international training organization that specializes in the safe management of disruptive and assaultive behavior. See https://www.crisisprevention.com/About-Us.

²⁵ *Id.* ¶ IV.B.2.t.

²⁶ *Id.* ¶ IV.B.2.v.

²⁷ *Id.* ¶ IV.B.4.b.

and retriev[ing] the critical information and data about the school's emergency systems, including communications, staff and student's locations, detailed floor plans and other important information, documents, items, and supplies that are prepared and readily available for use during the incident."²⁸

The active shooter policy recognized that "[t]he district has primary responsibility for the health and safety of students, staff, substitute teachers, and visitors while on district property," and that "[d]uring an emergency the district should coordinate law enforcement, health and medical services with other local first responders."²⁹ The school district's police department was assigned the responsibility for "the Incident Command Center" and for being "first on scene to prevent or stop an active shooter,"³⁰ while the policy assigned to other "[l]ocal law enforcement and first responders" the function and responsibility to "follow the direction of the ICS leader to ensure proper procedures are followed" and to "[a]ccept assigned roles of ICS leader."³¹

Under a section titled "Direction and Control," the policy laid out a specific "line of succession":

- 1. Uvalde CISD police department Chief Pete Arredondo
- 2. Uvalde CISD police department Lt. Mike Hernandez
- 3. Director of Student Services Kenneth Mueller³²

The policy calls for the district to conduct a "post incident review ... to analyze the process and make any corrective action as determined."³³

ALERRT Standard for Active Shooter Training

Before joining the Uvalde CISD Police Department, Chief Arredondo received active shooter training from the ALERRT Center,³⁴ which the FBI has recognized as "the National Standard

²⁸ *Id.* ¶ IV.B.4.f.

²⁹ *Id.* ¶ V.A.1 (emphasis supplied).

³⁰ *Id.* ¶ V.B.

³¹ *Id.* ¶ V.B. "ICS" is not defined in Uvalde CISD's active shooter plan, but it refers to "Incident Command System." *See, e.g.*, Federal Bureau of Investigation & ALERRT, *Active Shooter Response* – *Level 1*, at STU 2-27 (v. 7.2, 2020) (noting that "[a] list of incident command courses can be found on the FEMA training web page at https://training.fema.gov/emiweb/is/icsresource/trainingmaterials.htm").

³² Uvalde Consolidated ISD, Annex 1: Active Shooter ¶ VI.C.

³³ *Id.* ¶ VIII.C.

³⁴ Committee testimony of Pete Arredondo, UCISD Chief of Police (June 21, 2022). Chief Arredondo received the ALERRT training while working for the Laredo ISD police department, between his retirement from the Webb County Sheriff's Office in 2017 and his hiring as chief of the Uvalde CISD police in March 2020. *See id.* Uvalde Police Sgt. Daniel Coronado, who responded to Robb Elementary as well, also acknowledged receiving ALERRT training. Committee testimony of Sgt. Daniel Coronado, Uvalde Police Department (June 20, 2022).

in Active Shooter Response Training."³⁵ Every school district peace officer in Texas must be trained on how to respond in active shooter scenarios.³⁶ Not all of them get ALERRT training, but Chief Arredondo and other responders at Robb Elementary did.

ALERRT's training program identifies the challenge for law enforcement responders of possibly having to work "with a small ad hoc team of individuals they may have never trained with before," such that "the only way to swing the tactical advantage back in favor of the [law enforcement] responder is through the use of effective teamwork and tactics." The training identifies lessons to be learned from past active shooter incidents. From the Columbine tragedy in 1999, one lesson was that responders must have tools and training to immediately make entry and neutralize an active shooter threat. Another Columbine lesson was the "Priority of Life Scale": innocent civilians come before law enforcement and other responders. After Columbine, "[w]hile protecting the lives of officers remained a high priority, Stopping the Killing of innocent civilians took first priority. From that moment forward, every law enforcement officer was expected to be willing to risk his or her life without hesitation." Law enforcement officers were expected to distract, isolate, and neutralize the threat, even in tactically complex situations and when they lacked special training."

A lesson from the Navy Yard Building 197 incident in 2013 was that "[t]he earlier an Incident Command structure can be established, the better," and this tragedy prompted an "Initial Incident Command" block to be added to the ALERRT Level 1 course. 42 The Pulse Nightclub

But not all law enforcement officers receive this training, and several other law enforcement officers interviewed by the Committee stated they had not received ALERRT training. *E.g.*, Testimony of Sgt. Eduardo Canales, Uvalde Police Department (June 29, 2022) (none of UPD SWAT team has received ALERRT training); Committee testimony of Constable Johnny Field, Uvalde County Pct. 1 (June 30, 2022).

³⁵ See generally https://alerrt.org/about ("The ALERRT Center at Texas State University was created in 2002 as a partnership between Texas State University, the San Marcos, Texas Police Department and the Hays County, Texas Sheriff's Office to address the need for active shooter response training for first responders.").

³⁶ Tex. H.B. 2195, § 2, 86th Leg., R.S. (2019) ("A school district peace officer or school resource officer shall complete an active shooter response training program approved by the Texas Commission on Law Enforcement."), codified as Tex. Educ. Code § 37.0812.

³⁷ Federal Bureau of Investigation & ALERRT, Active Shooter Response – Level 1, at STU 1-9 (version 7.2, 2020).

³⁸ *Id.* at STU 2-6.

³⁹ *Id*.

⁴⁰ *Id.* at STU 2-7.

⁴¹ *Id*.

⁴² *Id.* at STU 2-10; *see also id.* at STU 2-13 (Rt. 91 Harvest Music Festival incident in 2017 taught lesson of establishing unified command early on). The Incident Command module teaches: "Ideally, Incident Command will be established as the first [law enforcement] responder arrives on-scene, provides dispatch with a brief LCAN [i.e. Location, Condition, Actions, and Needs] size-up report, and assumes command." *Id.* at STU 7-6. The

incident from 2016 taught the importance of awareness of the distinction between hostage/barricade and active shooter scenarios.⁴³ The Marjory Stoneman Douglas High School incident in 2018 taught the importance of incident command structure for appropriate management of resources and that law enforcement responders must be prepared to use word-of-mouth communication when radio communications are overloaded.⁴⁴

On the subject of communicating effectively, the ALERRT course teaches that effective communication is necessary for successful teamwork. Regional law enforcement agencies should continually train together to establish radio protocols for use during multi-agency active shooter response. Law Enforcement responders should be familiar with their regional communications plan but also be prepared to respond effectively without reliable radio communications. After giving a message, [law enforcement] responders should look for confirmation that the intended party received and understood the message. If radio communications are unreliable, it may be necessary to use runners to deliver messages.

With respect to establishing incident command, law enforcement responders are encouraged to complete Incident Command System (ICS) and National Incident Management System (NIMS) courses as early as possible in their careers.⁵⁰ The ALERRT training advises that "[t]he initial [law enforcement] responder to arrive at an active shooter scene becomes the Initial Incident Commander by default..."⁵¹ Further, "[a]s soon as [a law enforcement] responder notices that there appears to be sufficient officers hunting for the attacker, that responder

training acknowledges that "sometimes this is difficult because the first [law enforcement] responder to arrive on-scene may find him or herself immediately involved in a gunfight," and "[s]urviving and winning the gunfight should always take priority over considering Incident Command matters." *Id.* But "[a]s soon as immediate threats have been neutralized," law enforcement responders need to ensure that they communicate critical information to dispatch, including the assumption of command. *Id.*

⁴³ Id. at STU 2-12.

⁴⁴ Id. at STU 2-14.

⁴⁵ Id. at STU 2-23.

⁴⁶ *Id*.

⁴⁷ *Id*.

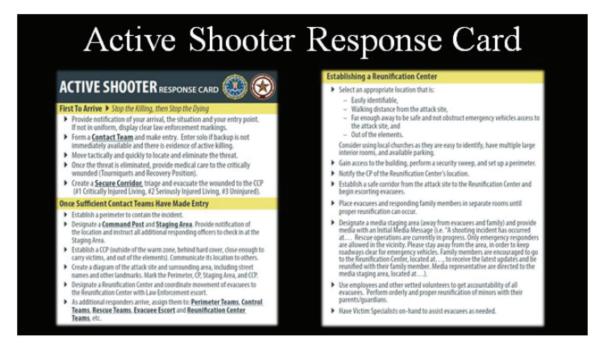
⁴⁸ *Id*.

⁴⁹ *Id*.

⁵⁰ Id. at STU 2-27.

⁵¹ *Id.* at STU 2-28.

should find a secure location, take out their Active Shooter Response Card, assume Initial Incident Command, and begin completing tasks listed on the card."⁵²



Slide 2-32. Active Shooter Response Card

Excerpt from ALERRT, Active Shooter Response—Level 1.

A later, more in-depth module on incident command describes the ICS process:

Take Command

The first step in the ICS process is for the first [law enforcement] responder who arrives on the scene ... to simply take command. Command is passed up the chain as the scene or situation grows larger. As more officers arrive on-scene, command is passed on and assumed by higher levels, building the ICS tree. All active shooter Incident Command structures will grow. This is a fact, and they will continue to grow for the next several days after the shooter is down.

Taking command is as simple as saying "I have command." ... This allows all oncoming resources to receive information and report to one person. Taking command is important because it will help stop freelancing and possible blue-on-blue scenarios.

Provide an LCAN Report

Next, the first [law enforcement] responder in should give a size-up report, or LCAN report. This is simply a Location, Condition, Actions, and Needs report telling follow-on units where the officer is at, what he or she sees on arrival, what he or she is doing or plans on doing, and what he or she needs to complete the missionLCAN reports

⁵² *Id.* ALERRT training teaches that every law enforcement responder, "even those recently hired, should carry the Active Shooter Response Card with them at all times," and "[t]hey should be prepared to assume command and start completing the tasks listed on the card within the first few minutes." *Id.* at STU 7-7; *see also id.* at STU 8-2 – 8-4(module 8.1, Incident Command System Instructor Walk-Throughs).

should be updated as more actions are needed to give follow-on responders updated information as they are coming in. This will help with overconvergence and allow the ICS system to begin to set upThe LCAN report should continue to be updated as the situation changes.

Assume Command

As more [law enforcement] responders arrive on the scene, someone should assume command of the outside of the building. This person could be a higher-ranking officer or any responder who sees enough personnel are inside and realizes that things need to be taken care of on the outside of the building (e.g., perimeter control, ambulance exchange areas, staging for all to set up, more contact teams).

Command will be passed from the interior commander ... to the command person outside who can begin getting control of the chaos of the emergency. Eventually, this person will be relieved of his or her position and an overall commander will take charge of the situation during the next several stages of the event. As the incident stabilizes, command will downsize and the situation will move into an investigative phase. Units will be released to service and cut loose.

The main points to remember about ICS are that the first [law enforcement] responder must take command. This [law enforcement] responder must also give an LCAN report for oncoming units. Someone else on the outside of the building must then assume command from the first [law enforcement] responder and begin to help gain control of the chaos.⁵³

The ALERRT training includes a module on "Entering Locked Buildings Quickly, Discreetly, and Safely," advising that "[r]esponders should be creative and make use of improvised tools to get inside the building however they can." With respect to using keys, ALERRT teaches that "[o]ften, the quickest, most discreet, and safest method of entering a locked building is to locate a key—as long as keys can be located immediately," but "if a key cannot be located quickly, [law enforcement] responders should use another technique to enter the area without delay." The training also suggests sledgehammers and pry tools as reliable, practical, and affordable breaching tools, and a separate module anticipates the challenge of breaching closed and locked outward-opening interior doors, noting that "[m]any public buildings are required by law to have outward-opening doors with self-closing mechanisms for all high-occupancy rooms," and that law enforcement responders "should be prepared to encounter this type of door during an active response."

 $^{^{53}}$ Id. at STU 8-2 – 8-3 (emphasis in original).

⁵⁴ Id. at STU 3-8.

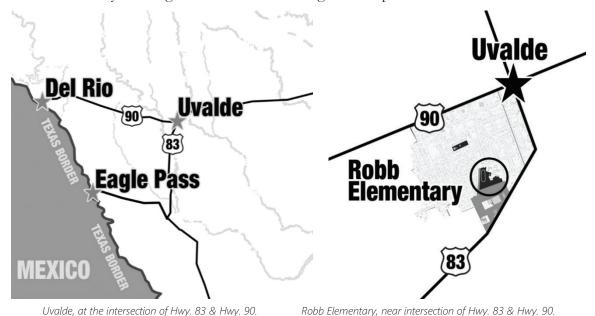
⁵⁵ *Id.* at STU 3-9.

⁵⁶ *Id.* at STU 3-11 − 3-12.

⁵⁷ *Id.* at STU 4-22.

Rise of "Bailout" Security Incidents

Uvalde CISD police officers visit school campuses in the event of lockdowns, which occurred relatively frequently at Robb Elementary due to its proximity to the intersection of Highway 83 and Highway 90. Chief Arredondo described a rise in bailouts: to avoid being stopped by law enforcement, vehicles loaded with undocumented immigrants traveling along highways leading from the border towns of Del Rio and Eagle Pass lead officers on high-speed chases that often end by crashing the vehicle and allowing the occupants to scatter.⁵⁸



Numerous witnesses testified to the Committee that there has been an increase in bailout activity over the past 18 months.⁵⁹ Uvalde CISD Director of Student Services Kenneth Mueller testified that since February 2021, high-speed chases have been a daily event in the Uvalde area, causing Uvalde CISD schools to be secured or locked down frequently, with 47 "secure" or "lockdown" events happening since late February 2022, and approximately 90% of those

⁵⁸ Committee testimony of Chief Pete Arredondo, Uvalde CISD Police, at 29-30 (June 21, 2022).

⁵⁹ See, e.g., Committee testimony of Mandy Gutierrez, Robb Elementary Principal (June 16, 2022); see also Committee testimony of Lt. Mike Hernandez, Uvalde CISD Police(June 17, 2022) (confirming the frequency of bailouts in the neighborhood surrounding Robb Elementary). Regarding the impacts of bailouts on the Uvalde community, see, e.g., Carine Hajjar, National Review, Human-Smuggler 'Bailouts' Are Endangering Border Communities (Apr. 12, 2022), available at https://www.nationalreview.com/corner/human-smuggler-bailouts-are-endangering-border-communities/ (featuring pre-tragedy interview of Uvalde Mayor Don McLaughlin, specifically identifying the risk to school-age residents of Uvalde).

being attributed to bailouts.⁶⁰ Uvalde CISD parents became so concerned about the number of bailouts occurring near the elementary-school campuses that they offered to hire off-duty police to supplement the Uvalde CISD police presence.⁶¹

Raptor Alert System

School district witnesses also testified to another effect of the rising prevalence of bailouts. The alert system does not differentiate its signals between bailouts and other kinds of alerts, such as an active shooter situation. The series of bailout-related alerts led teachers and administrators to respond to all alerts with less urgency—when they heard the sound of an alert, many assumed that it was another bailout.



Raptor Alert application.

Raptor Technologies supplied the alert system Uvalde CISD used. Uvalde CISD had used Raptor's software to screen campus visitors for approximately 10 years. In the fall of 2021, Mueller viewed a presentation on Raptor's emergency management alert system, and he gathered the Uvalde CISD principals, who agreed that they needed it. Uvalde CISD purchased the software in October 2021, and the first Raptor alert occurred on February 8, 2022.⁶²

By March 2022, as Uvalde CISD was implementing the Raptor alert system, there was a high volume of alerts. By utilizing the Raptor mobile phone application,⁶³ any Uvalde CISD employee could activate an alert. Staff at a school campus typically would first learn about a bailout from an external source. Then they would decide, depending on the proximity of the threat to the school, whether to initiate a "secure" alert or a "lockdown" alert.⁶⁴

⁶⁰ Committee testimony of Kenneth Mueller (June 16, 2022); *see also* Committee testimony of Lynn Deming, Robb Elementary fourth-grade teacher (June 29, 2022) (describing how most Raptor alerts have been for bailouts, and one happened on the Robb Elementary campus near the bus lane).

⁶¹ Committee testimony of Kenneth Mueller (June 16, 2022).

⁶² *Id.*; see https://raptortech.com/raptor-alert/.

⁶³ Raptor Emergency Management Brochure, available at https://raptortech.com/wp-content/uploads/2021/09/Raptor-EmergencyManagement-Brochure.pdf?emergency-management-software-for-schools.

⁶⁴ Committee testimony of Mandy Gutierrez, Robb Elementary Principal (June 16, 2022).

Chief Arredondo explained it was important to notify schools in the vicinity of the highways about bailouts because the passengers would scatter everywhere, and the school district police did not want them coming on campus. While there have been no incidents of bailout-related violence on Uvalde CISD school grounds, there have been examples of high-speed driving that sometimes crossed school parking lots and reports of some bailout incidents involving firearms in the surrounding neighborhoods.⁶⁵

The Committee received evidence that Uvalde CISD employees did not always reliably receive the Raptor alerts. Reasons included poor wi-fi coverage, phones that were turned off or not always carried, ⁶⁶ and employees who had to log-in on a computer to receive a message.

Uvalde CISD Facilities & Maintenance

Uvalde CISD has a Maintenance & Operations Department overseen by director Rodney Harrison, who testified before the Committee. Harrison expressed his view that Uvalde CISD's buildings are in fairly good shape. To facilitate taking care of each campus, the Maintenance & Operations Department employs 14 full-time employees supplemented by six students employed to help move furniture. Harrison stated that it is difficult to keep his department staffed, and he has recently lost employees to two retirements during the COVID pandemic, one death, and another employee moving away.⁶⁷

Robb Elementary Facilities & Management

Robb Elementary School was built in 1955. Most recently, it served as the primary Uvalde CISD school for students in second through fourth grades.⁶⁸ "New" buildings were constructed at the elementary schools, including the west building at Robb, 22 years ago.⁶⁹

Robb Elementary had a new principal beginning with the 2021–22 school year. Principal Mandy Gutierrez has worked for Uvalde CISD for over two decades, starting as a fourth grade

⁶⁵ Committee testimony of Chief Pete Arredondo, Uvalde CISD Police, at 30 (June 21, 2022); Committee testimony of Kenneth Mueller (June 16, 2022).

⁶⁶ Committee testimony of Kenneth Mueller (June 16, 2022).

⁶⁷ Committee testimony of Rodney Harrison, Uvalde CISD Maintenance & Operations Director (June 16, 2022).

⁶⁸ The only other option for second to fourth grades is the Uvalde Dual Language Academy. Committee testimony of Mandy Gutierrez, Robb Elementary Principal (June 16, 2022). Uvalde CISD informed the Investigatory Committee that it intends to turn the former Robb Elementary School campus into a park dedicated to the memory of the students and teachers killed in the shooting tragedy. Committee testimony of Dr. Hal Harrell, Uvalde CISD superintendent (June 16, 2022).

⁶⁹ Committee testimony of Rodney Harrison, Uvalde CISD Maintenance & Operations Director (June 16, 2022); Committee testimony of Dr. Hal Harrell, Uvalde CISD superintendent (June 16, 2022).

teacher at Robb in 2008. In 2018, she became assistant principal, and she served in that position until becoming the principal in 2021.⁷⁰

Uvalde CISD had assigned two full-time custodians to Robb Elementary.⁷¹ The lead custodian was Jaime Perez.

In 2019, Uvalde CISD received a state-funded grant to upgrade school security. The school district used its funds to add video cameras to various campuses, build a fence surrounding Flores Elementary School, and install magnetic entryways at some campuses.⁷²

Policies for Locking Doors

Robb Elementary's principal testified that the school's west building has three exterior doors, two of which policy required to remain locked. Each classroom in the west building had a door to a hallway, which policy required to remain locked at all times.⁷³ The interior classroom doors also were required to remain closed and locked at all times.⁷⁴ The interior doors were solid metal with a small pane of glass and could only be locked from the outside using a key.⁷⁵

The school district's police officers conducted walk-throughs, during which they would check for locked doors.⁷⁶ When they found doors unlocked the officers would remind teachers to keep the doors locked, and in the event of repeat offenders, they would document the violations.⁷⁷

Multiple witnesses reported to the Committee that people at Robb Elementary commonly left doors unlocked—as did people at all the other Uvalde CISD schools as well.⁷⁸ Teachers would use rocks to prop open exterior doors,⁷⁹ and they used door stops, wedges, and magnets to

⁷⁰ Committee testimony of Mandy Gutierrez, Robb Elementary Principal (June 16, 2022).

Committee testimony of Rodney Harrison, Uvalde CISD Maintenance & Operations Director (June 16, 2022).
 Id.

⁷³ Committee testimony of Mandy Gutierrez, Robb Elementary Principal (June 16, 2022); *see also* Committee testimony of Pete Arredondo, Chief of Uvalde CISD Police Department (June 21, 2022) (assumed Rooms 111 and 112 were locked because the policy was for them to be locked at all times, particularly during a lockdown).

⁷⁴ Uvalde Consolidated ISD, *Annex 1: Active Shooter* ¶ IV.B.2.r. ("Teachers are instructed to keep their classroom doors closed and locked at all times.").

⁷⁵ Committee testimony of Mandy Gutierrez, Robb Elementary Principal (June 16, 2022).

⁷⁶ Id.; Committee testimony of Ruby Gonzalez, Uvalde CISD police officer (June 17, 2022).

⁷⁷ Committee testimony of Mandy Gutierrez, Robb Elementary Principal (June 16, 2022).

⁷⁸ E.g., Committee testimony of Ruby Gonzalez, Uvalde CISD police officer (June 17, 2022).

⁷⁹ Committee testimony of Chief Pete Arredondo, Uvalde CISD Police (June 21, 2022).

prevent interior door locks from latching.⁸⁰ Due to a key shortage, Robb Elementary School substitute teachers often were instructed to use the "magnet system" to circumvent the locks in violation of school district policy.⁸¹

Uvalde CISD Police Officer Adrian Gonzalez testified that when an officer was walking the floors and checking doors, the teachers would notify each other, and they would lock their doors. ⁸² The officers would speak to the teachers and to their supervisors, and they tried to discourage the use of magnets. ⁸³ Common responses from teachers would include that they did not have a key (particularly in the case of substitute teachers) and that it was just temporary while a child was using the restroom. ⁸⁴ For some teachers, the inconveniences of keeping up with a key outweighed their perception of the risk of leaving doors unlocked. Other teachers were "rule followers," always locking their doors.

At the time of the incident, all the doors in the building had been recently painted.⁸⁵ In March 2022, around spring break, school administrators received a report from the teacher in Room 111 that his classroom door was not always locking.⁸⁶ According to numerous witnesses who testified before the Committee, the door to Room 111 could lock, although it took some extra effort, and if the door closed softly it might not lock. But the head custodian at Robb Elementary testified that he never heard about any problems with the doors for Rooms 111 or 112, and if he had, he would have created a work order.⁸⁷ Robb Elementary maintenance records confirm the lack of any written work order to repair the door for Rooms 111 or 112 during the 2021–22 school year. Although Uvalde CISD policy required each staff member to

⁸⁰ Committee testimony of Ruby Gonzalez, Uvalde CISD police officer (June 17, 2022); Testimony of Rodney Harrison, Uvalde CISD Maintenance and Operations Director (June 16, 2022). Assistant principal Shawna Wolbert, who was not present on campus during the incident, told the Department of Public Safety that there was a "magnet system" with magnets provided to substitutes to keep doors from locking. DPS interview of Robb Elementary Assistant Principal Shawna Wolbert (May 28, 2022). Principal Gutierrez said the same thing in her statement to DPS. DPS interview of Robb Elementary Principal Mandy Gutierrez (May 28, 2022).

⁸¹ See DPS interviews of Robb Elementary administrators (May 28, 2022); see also Uvalde Consolidated ISD, Annex 1: Active Shooter ¶ IV.B.2.r. ("Teachers are instructed to keep their classroom doors closed and locked at all times. Barriers are not to be used. Substitutes shall follow the same policy, with campuses ensuring they have access to the classrooms they need throughout the day." (emphasis supplied)).

⁸² Committee testimony of Adrian Gonzalez, Uvalde CISD police officer (June 20, 2022).

⁸³ Committee testimony of Chief Pete Arredondo, Uvalde CISD Police (June 21, 2022); Committee testimony of Ruby Gonzalez, Uvalde CISD police officer (June 17, 2022).

⁸⁴ Committee testimony of Ruby Gonzalez, Uvalde CISD police officer (June 17, 2022).

⁸⁵ Committee testimony of Mandy Gutierrez, Robb Elementary Principal (June 16, 2022); *see also* DPS interview of Arnulfo Reyes, Robb Elementary teacher (June 8, 2022).

⁸⁶ See, e.g., Committee investigators' interview of Arnulfo Reyes, Robb Elementary teacher (June 30, 2022).

⁸⁷ Committee testimony of Jaime Perez, Robb Elementary head custodian (June 16, 2022).

know the procedures to follow to request repairs for a door that would not lock,⁸⁸ Robb Elementary teachers testified to the Committee that instead of requesting a work order themselves, they would call school administrators who were responsible for making the requests.

Maintenance of Doors & Keys

Considering the district's policies about keeping doors locked, it was important that doors and locks be properly maintained. The manufacturer discontinued production of the door locks used at Robb Elementary. While the school district had acquired a supply of key blanks at the time the locks were purchased, that supply was gone by May 2022.⁸⁹

The director of maintenance and operations, Mr. Harrison, testified that people frequently lose, forget, or simply do not want to carry school keys. As a result, the custodians spend a lot of time opening doors. The maintenance and operations department has one employee who specializes in door repairs, but it relies on YouTube instruction videos, online diagrams, and the help of a local locksmith to work on locks. Harrison testified that unless there is a work order notifying his department of a problem, his employees do not regularly check doors.⁹⁰

There were numerous different master keys that worked with different sets of locks at the Robb Elementary School campus. People who had master keys included Harrison, Principal Gutierrez, Assistant Principal Shawna Wolbert, Robb Instructional Coach Rebecca Guzman, Principal Gutierrez's secretary, Janette Martinez, and lead custodian Jaime Perez. Both Uvalde CISD Police Chief Arredondo and Lt. Mike Hernandez possessed a large number of keys to Uvalde CISD buildings. Chief Arredondo kept a number of keys in his car, but he was not sure whether he had master keys for Robb Elementary. He knew he did not have a key to every building, though he testified that he had requested a complete set for himself. Of the over 50 keys that he carried with him, Lt. Hernandez testified that he had a Robb Elementary master

⁸⁸ Uvalde CISD, *Annex 1: Active Shooter* ¶ IV.B.1.b ("Doors to all classrooms will remain locked during instruction Each staff member will know the procedures to follow in order to have any door or window repaired that will not lock.").

⁸⁹ Committee testimony of Rodney Harrison, Uvalde CISD Maintenance & Operations Director (June 16, 2022).

⁹⁰ Id.

⁹¹ Committee testimony of Rodney Harrison, Uvalde CISD Maintenance & Operations Director (June 16, 2022); Committee testimony of Mandy Gutierrez, Robb Elementary Principal (June 16, 2022).

⁹² Committee testimony of Pete Arredondo, USCID police chief (June 21, 2022).

key that had worked, although sometimes he had to jiggle keys to make them work. Additionally, sometimes staff would change locks without notice to him. 93

Arnulfo Reyes, the fourth grade teacher in Room 111 stated in an interview that teachers and students in his building widely knew that the door to his classroom frequently did not lock, and he had gotten in "trouble" several times when Uvalde CISD police officers found the door unlocked. He stated that, on multiple occasions, he reported the malfunctioning lock to school administrators, who stated that the request had been turned in. As was the apparent practice among Robb Elementary teachers, Reyes never submitted a work order to repair the door lock for Room 111 himself. Principal Gutierrez, in her testimony, confirmed that school administration knew about the issues with that door, stating that it was reported around spring break of 2022. Pos

⁹³ Committee testimony of Lt. Mike Hernandez, Uvalde CISD Police (June 17, 2022). Lt. Hernandez's keys were sent into the west building in response to the request for a master key during the May 24, 2022, incident, but officers inside the building were unable to identify the correct key from among the dozens of keys on his key rings.

⁹⁴ DPS interview of Arnulfo Reyes, Robb Elementary teacher (June 8, 2022).

⁹⁵ Committee testimony of Mandy Gutierrez, Robb Elementary Principal (June 16, 2022).

4 | THE ATTACKER

One motive that drove the man behind the massacre at Robb Elementary School was a desire for notoriety and fame. The Committee refuses to perpetuate his memory in that way; our focus is to ensure that Texas never forgets the children and beloved teachers who have been lost and the lessons this tragedy can teach. So, instead of naming him, we call him by a generic term used in active shooter training: "the attacker." In consultation with the local community in Uvalde, the Committee arranged to show victims' families, in advance of public release, a prudently edited version of Robb Elementary's hallway surveillance video that did not include images of him. ⁹⁶ We regret that others, under cover of anonymity and for their own motives, have sensationalized evidence of this horrible tragedy at the risk of glorifying a monster. ⁹⁷

Family & Early Life

The attacker was born in Fargo, North Dakota on May 16, 2004, the second child born to the mother, Uvalde native A.R., and her then-boyfriend, S.R. The couple split shortly after the attacker's birth, and A.R. returned to Uvalde with the two children. The father had limited and inconsistent involvement in his children's lives from that point onward.⁹⁸

Mother A.R. was known to several witnesses who testified before the Committee from her work as a server at local Uvalde restaurants. A.R. was involved in the attacker's early life, but over time, her relationship with both her children became strained. A.R. struggled with a long history of drug use and other personal issues, though her only criminal history was a 2005 misdemeanor theft that ended in probation and a dismissed 2007 charge of misdemeanor family-violence assault. The FBI interviewed a former girlfriend of the attacker who

⁹⁶ The Committee incorporates into its report, by reference, the edited videorecording of the May 24, 2022, law enforcement response at Robb Elementary uploaded at https://www.youtube.com/watch?v=vYjDc5sDZyU. This video is considered part of this report.

⁹⁷ Tragically, there is evidence that national media coverage of mass shootings has played a role in increasing their frequency. *See generally* https://www.dontnamethem.org/.

⁹⁸ The evidence shared by other law enforcement agencies includes the attacker's birth certificate and school records as well as notes from interviews of both of his parents.

⁹⁹ In addition to various interviews of family members conducted by law enforcement agencies in the wake of the Robb Elementary tragedy, the Committee heard testimony from an aunt and a cousin of the attacker. Also, the Committee learned many details in this section from a review of the attacker's mobile phones and cloud-based data storage, which were imaged by law enforcement and provided to the Committee.

¹⁰⁰ Records of the mother's criminal history were provided to the Committee.

believed one of A.R.'s boyfriends sexually assaulted him at an early age, but that A.R. didn't believe his outcry.¹⁰¹

The attacker and his family had some support from extended family, most notably A.R.'s mother, C.G. Testimony before the Committee portrayed C.G. as well-known and well-regarded in the Uvalde community, particularly within the local school district, from which she retired after twenty-seven years. C.G. took on the role of a maternal figure in the lives of both the attacker and his sister, especially as they grew older.

Relatives described the attacker as shy and quiet. The Committee heard testimony that he was reluctant to interact with peers because of a speech impediment. Poverty is not an unfamiliar circumstance in Uvalde—86% of the children in the school district may be economically disadvantaged. The attacker often wore the same clothing day after day.

School

Records from the attacker's early school years reveal varied accounts of his character and school performance. His pre-K teacher's report described him as "a pleasure to have ... a wonderful student ... always ready to learn," and it praised his "hard work and positive attitude in the classroom." Yet early assessments showed he was behind other students academically, and by third grade, school officials already had identified him as "at-risk" due to consistently poor test results. School records reveal that someone may have requested speech therapy for the attacker, and his later internet searches show he himself sought information on dyslexia. Ultimately, he received no special education services. 103

The attacker's fourth grade year at Robb Elementary School was significant to him. The shooting took place in his former fourth grade classroom, and he discussed bad memories of fourth grade with an acquaintance just weeks beforehand. In testimony before the Committee, two different narratives have emerged.

The attacker's fourth grade teacher testified before the Committee. Not only did she know the attacker from having been his teacher, but she was also in Robb Elementary's fourth grade building, in a different classroom, at the time of the attack. This teacher told the Committee she knew the attacker needed extra help in her class because he claimed to be a victim of bullying. She testified that she met with the attacker's mother, A.R., over the mother's concerns about bullying, and that she had promised A.R. that her son would have a good fourth grade

¹⁰¹ FBI San Antonio, Situational Report (May 30, 2022) (SITREP #11, final SITREP).

¹⁰² Committee testimony of Dr. Becky Reinhardt, Uvalde CISD (June 30, 2022).

¹⁰³ *Id*.

year. According to the teacher, it was a good year for the attacker. She said she believed her classroom was a safe place for him and that he made friends there.

Members of the attacker's family, however, reported to the Committee their belief that other students still bullied the attacker throughout his fourth grade school year over his stutter, clothing, and short haircut. A cousin of the attacker said she was in the same fourth grade class with him, and she corroborated this version of his experience that year. She reported an incident in which another girl in the class tied the attacker's shoelaces together, resulting in him falling over and injuring his face. The family also reported their belief that some teachers also picked on the attacker and his cousin.

Despite the accounts that suggest bullying of the attacker had become a concern by the fourth grade, in notes found on his phone, he described them as beginning in middle school. It is not known to the Committee whether the attacker ever shared these notes with anybody.

Records show the attacker had declining attendance, with more than one hundred absences annually beginning in 2018, along with failing grades and increasingly dismal performance on standardized and end-of-course exams. While Uvalde CISD "school success officers" do try to bring truant children back to school, many Uvalde students have spotty attendance, and the local judicial system reportedly does not consistently enforce truancy rules.¹⁰⁴ It is unclear whether any school resource officers ever visited the home of the attacker.

Despite his absences, or perhaps because of them, the attacker had almost no disciplinary history at school. The single infraction on his school record is for "mutual combat" with another student in a hallway in late 2018, resulting in a three-day suspension.

By 2021, at age seventeen, the attacker had only completed the ninth grade. On October 28, 2021, Uvalde High School involuntarily withdrew him, citing poor academic performance and lack of attendance.¹⁰⁵

¹⁰⁴ *Id*.

¹⁰⁵ There has been some public reference to a Uvalde High School teacher, identified in FBI investigative reports as Rhiannon Bates, who was identified by yet another teacher as having purportedly stated in the past that the attacker was the one student of whom she was afraid, and that "if any student was going to become a school shooter, it would be him." FBI San Antonio, Situational Report (May 30, 2022) (SITREP #11, final SITREP). The Committee's investigators interviewed Ms. Bates, and she categorically denies this account, specifically denying any knowledge about the attacker. In her testimony to the Committee, Uvalde CISD administrator Dr. Becky Reinhardt confirmed that the attacker had not been one of Bates's students, and there is no indication that she ever had any interaction with him. Committee testimony of Dr. Becky Reinhardt, Uvalde CISD (June 30, 2022).

The Year Before

In a year distinguished by the general school-age population's return to school in Uvalde and elsewhere after the COVID pandemic, the attacker dropped out of school and turned down a dark path. While in earlier years, notes in his phone reflect that he unsuccessfully sought to fit in (including a fixation with weight and fitness that resulted in an eating disorder), in 2021 he appears to have increasingly withdrew and isolated himself.

An ex-boyfriend of his mother A.R. described the attacker to an investigating Texas Ranger as a loner who punched holes in the walls of his room after arguments with her. By this time the attacker's sister already had graduated and left home, and his best (perhaps only) friend was living in San Antonio. The attacker had no driver's license or vehicle. Family members told the Committee and other investigators that a group of the attacker's former friends "jumped" him early in the year. The attacker began trying to teach himself boxing and mixed martial arts with a punching bag in his room at home.

In mid-2021, his relationship with the girlfriend later interviewed by the FBI ended. She described the attacker as lonely and depressed, constantly teased by friends who called him a "school shooter." She said he told her repeatedly that he wouldn't live past eighteen, either because he would commit suicide or simply because he "wouldn't live long." The attacker responded to the breakup by harassing the girl and her friends.

The attacker began wearing black clothes, combat boots, and long, unkempt hair. He was active on several social media platforms, including TikTok, Instagram, YouTube, and the French livestreaming platform Yubo. He networked with local peers in ongoing group chats on Snapchat, and he played a range of videogames, including the Call of Duty and Grand Theft Auto series. Most of his usernames and even his email address reflected themes of confrontation and revenge.

The attacker began to demonstrate interest in gore and violent sex, watching and sometimes sharing gruesome videos and images of suicides, beheadings, accidents, and the like, as well as sending unexpected explicit messages to others online. Those with whom he played videogames reported that he became enraged when he lost. He made over-the-top threats, especially towards female players, whom he would terrorize with graphic descriptions of violence and rape.

His online interactions grew more manipulative and controlling as the year wore on, and he presented a more commanding personality online than he did in person. He pretended to a

¹⁰⁶ FBI San Antonio, Situational Report (May 30, 2022) (SITREP #11, final SITREP).

greater level of maturity than he had, searching the internet for information on sexual practices mentioned by others in conversation. The attacker wrote about his difficulty connecting to other people or feeling empathy for them; he said he was "not human," and he called others "humans," apparently intending it as an insult. Later internet usage suggests he may have wondered if he was a sociopath and sought out information on the condition. His internet research resulted in him receiving an email about obtaining psychological treatment for sociopathy.

The attacker became focused on achieving notoriety. He believed his TikTok and YouTube channels would be successful. The small number of views he received led him to tell those with whom he interacted that he was "famous," that they were mere "randoms" by comparison, and that they were lucky to interact with him.

On Yubo, the attacker spoke enviously of publicity given to a murderer and animal abuser whose story became widely known after a Netflix documentary. In late 2021, he shared a video online that showed him driving around with "someone he met on the internet" holding a clear plastic bag that contained a dead cat, which he discarded in the street and spit on while his driver laughed. The video then showed the attacker wearing a tactical plate carrier, went on to show him dryfiring BB guns at people, and ended with footage of emergency services responding to a serious car accident, which he claimed his driver had caused.

The attacker got a job in late 2021. He first worked at Whataburger, where a friend's grandmother saw him. She snapped a picture and sent it to her grandson, warning that it was "an example of what your life will be if you quit school"—a sentiment some of his peers expressed to him directly. His employer fired him after a month for threatening a female coworker, and he fared similarly at his next job at Wendy's. A coworker there described him as "not a good person" and "troubled," someone who "put himself in a box and would not talk or associate with anyone he worked with." An exception to that approach was when he tried discussing guns with another employee. When the other employee received the discussion negatively, the attacker challenged him to a fight. The attacker also occasionally worked with his grandfather, who had an air conditioning business and paid him in cash.

Living at home, the attacker had no real expenses and hoarded money, telling acquaintances that he was "saving for something big" and that they would all see him in the news one day. Family members believed he was saving money for his own apartment or car, but clues to his real plans surfaced near the end of 2021. That is when he ordered rifle slings, a red dot sight, and shin guards, as well as the body armor carrier worn in both the video he shared and on the day of the Robb Elementary massacre. Still seventeen at the time, the attacker asked at

least two different people to buy guns for him,¹⁰⁷ which they both refused to do. Interviews conducted by other investigators indicate that family members and friends were aware of his efforts to buy guns before he was legally permitted to do so.

Finally, the attacker developed a fascination with school shootings, of which he made no secret. His comments about them coupled with his wild threats of violence and rape earned him the nickname "Yubo's school shooter" on that platform. Those with whom he played games taunted him with a similar nickname so often that it became a running joke. Even those he personally knew in his local chat group began calling him "the school shooter" after he shared pictures of himself wearing the plate carrier he'd bought and posing with a BB gun he tried to convince them was real. None of his online behavior was ever reported to law enforcement, and if it was reported by other users to any social media platform, it does not appear that actions were taken to restrict his access or to report him to authorities as a threat.

The Last Days

While a vague idea for a school shooting appears to have been in the attacker's mind as early as late 2021, he began to pursue his evil plan in early 2022 after a falling-out with his mother. A blowout argument between them was livestreamed on Instagram, and several members of their family viewed it. Although sheriff's deputies responded to a call, they made no arrests. Soon afterwards, the attacker left home and moved in with his grandmother, just blocks away from Robb Elementary School.

His relationship with his mother never improved. He retained similar antipathy toward his father, who last saw him about a month before the shooting. The father felt his son had no love left for him. He noticed that the attacker had cuts on his own face that appeared to be self-inflicted (something other witnesses had observed on prior occasions), and he claimed he was "doing something" soon.

The attacker had moved into his grandmother's small home, where he had no room of his own and slept on the living-room floor. A few days before the shooting, he confided in an older cousin who was also staying there, telling her that he did not want to live anymore. After

¹⁰⁷ The straw purchase of a firearm as proposed by the attacker would violate federal law. See 18 U.S.C. § 922(a)(6) ("It shall be unlawful— for any person in connection with the acquisition or attempted acquisition of any firearm or ammunition from a ... licensed manufacturer, [or] licensed dealer ... knowingly to make any false or fictitious oral or written statement or to furnish or exhibit any false, fictitious, or misrepresented identification, intended or likely to deceive such ... manufacturer, [or] dealer ... with respect to any fact material to the lawfulness of the sale ... under the provisions of this chapter"). Additionally, Texas law provides that "A person commits an offense if the person ... intentionally or knowingly sells, rents, leases, or gives or offers to sell, rent, lease, or give to any child younger than 18 years of age any firearm ..." Tex. Pen. Code § 46.06(a)(2).

a lengthy heart-to-heart, the cousin believed she'd gotten through to him. The attacker's uncle also recalled having similar discussions with him.

Meanwhile, the attacker's planning and preparation became more focused. The Committee received extensive documentation compiled and created by the Bureau of Alcohol, Tobacco, Firearms and Explosives in the course of its investigation of the attacker's purchases. He began buying more firearms accessories beginning in February 2022, including 60 30-round magazines, a holographic weapon sight, and a Hellfire Gen 2 snap-on trigger system.

On March 23, 2022, a suspicious person dressed in all black with a backpack was seen canvasing Robb Elementary, but no one ever identified the person.

As soon as the attacker turned eighteen on May 16, 2022—just one week before the shooting on May 24, 2022—he was finally able to purchase guns and ammunition. An online retailer shipped 1,740 rounds of 5.56mm 75-grain boat tail hollow point to his doorstep, at a cost of \$1,761.50. He ordered a Daniel Defense DDM4 V7 (an AR-15-style rifle) for shipment to a gun store in Uvalde, at a cost of \$2,054.28 (including tax and transfer fee). On May 17, 2022, he bought a Smith and Wesson M&P15 (also an AR-15-style rifle) at the same store in Uvalde, at a cost of \$1,081.42. He returned the next day for 375 rounds of M193, a 5.56mm 55-grain round with a full metal jacket, which has a soft core surrounded by a harder metal. He returned again to pick up his other rifle when it arrived on May 20, 2022, and he had store staff install the holographic sight on it after the transfer was completed.¹⁰⁸



The attacker's rifles; the leftmost was used at Robb.

The owner of the gun store described the attacker as an "average customer with no 'red flags' or suspicious conditions"—just that he was always alone and quiet. The owner of the store remembered asking how an 18-year-old could afford such purchases (the rifles alone were over \$3,000), and the attacker simply said he had saved up. Patrons of the store who saw him told

¹⁰⁸ The exact cost of all magazines, sights, and other accessories in addition to the amounts listed above likely ranged from \$1,500–2,000 based on market value and the amounts the attacker reported to those he told about the purchases.

a different story in FBI interviews, saying after the tragedy that the attacker was "very nervous looking" and that he "appeared odd and looked like one of those school shooters"; another described his all-black clothing as simply giving off "bad vibes."

A background check was conducted, and the attacker qualified for the purchases. While multiple gun sales within such a short period are and were reported to the ATF, the law only requires purchases of handguns to be reported to the local sheriff. Here, the information about the attacker's gun purchases remained in federal hands.

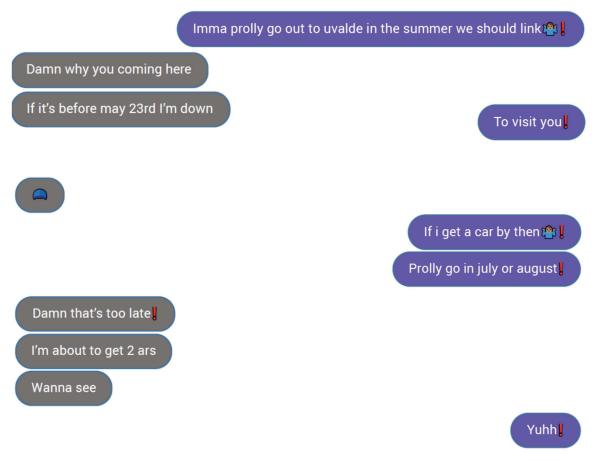
The attacker's uncle drove him to the gun store twice. He said he did not know they were going to pick up a rifle the first time; the store is connected to a popular restaurant, and the attacker said he was hungry. When he returned with a long box and no food, it was obvious he had purchased a rifle. The Committee has not learned who took the attacker to the gun store on May 18th, but the uncle drove him back on May 20th after the attacker falsely told him he needed to pick up ammunition purchased online. The uncle said he did not see what was in the attacker's package, and he was too unfamiliar with firearms to know what might have been inside. It is now known that the package contained the second, more expensive rifle used in the shooting.

The attacker's grandmother and cousin both told him he could not have a gun in the home, so the uncle agreed to store the first rifle at his house. He believes the attacker snuck it out after staying the night a few days later. The attacker apparently hid the second rifle outside his grandmother's house until he brought it in the night before the shooting, as he related to an acquaintance by text messages.

The attacker had no experience with firearms, and based on other investigators' interviews of friends and family, the shooting was likely the first time he fired one. The uncle recalled the attacker attempting to seat a magazine in the rifle and the magazine repeatedly falling out onto the floor. Internet search history shows the attacker sought out ranges but was unable to get to one that allowed long guns before the shooting. He also searched the internet for basic information such as what kind of ammunition an AR-15 fires and whether a magazine can be reused after being emptied, and he looked for information on how to buy "juggernaut armor," a fictional armor system depicted in videogames.

Online interactions involving the attacker continued to foreshadow a tragedy. In March 2022, in an Instagram group conversation, a student told him that "people at school talk [expletive] about you and call you school shooter." Later, the attacker began referencing a timeline. On April 2nd, he asked in a direct message on Instagram, "Are you still gonna remember me in 50 something days?" After the answer, "probably not "," he retorted with, "Hmm alright

The attacker also began sharing photos of his rifles, including with total strangers. Those in his Snapchat group claimed they believed the guns were fake (despite the attacker posting the receipt) because he had tried to pass off a BB gun as real the year before. For those with no reason for doubts, the context often made the shared images disturbing, such in late April when a friend proposed visiting the attacker in Uvalde:



After the attacker sent a picture of the rifle he intended to buy—to great approval—their discussion continued just after his birthday when he made his first gun and ammo purchases:

Just spent 1652 on ammo

and 2150on some ar

Smhh ♥ |

Givin me school shooter vibes

In the last days before the shooting, the attacker saved news stories and other information about the mass shooting in a Buffalo, N.Y. supermarket on May 19, 2022. He also spent time with his cousin's son, who attended Robb Elementary. After playing the children's videogame Roblox, the attacker elicited from him details about his schedule and how lunch periods worked at the school.

On the eve of the shooting, the attacker began contacting numerous people with vague but ominous messages about doing something the next day. In one Snapchat exchange with a German teenager he had befriended, he commented: "I got a lil secret ② ②." When she became curious, he told her it was "impossible for today" because he was still waiting for something "being delivered Monday 23 by 7 pm." His order of 1,740 hollow points arrived later that day.

Prior to the shooting, the attacker had no criminal history and had never been arrested. He is not known to have espoused any ideology or political views of any kind. Private individuals alone knew the many warning signals.

5 | MAY 24 INCIDENT & LAW ENFORCEMENT RESPONSE

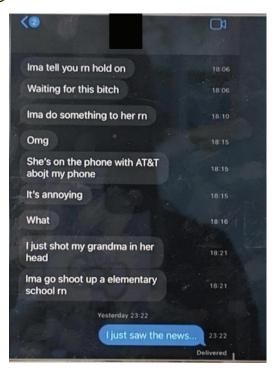
May 24, 2022, marked the beginning of the end of the 2022 school year at Robb Elementary School. Parents, teachers, and students came to school that day ready to celebrate the students' accomplishments and awards and to look forward to another peaceful Uvalde summer. The students had completed all their tests and school instruction was over for the year. It was awards day, and parents were coming to school to see their children's ceremonies. Many students anticipated going home early or remaining with their classmates to watch a movie.

In a nearby neighborhood, a former Robb Elementary student and Uvalde High School dropout had made other grim plans for that now-fateful day. In private messages, the Robb Elementary School attacker had indicated to acquaintances that he had chosen this date in advance for a significant event. Some in the Uvalde community have speculated that the attacker intended to choose the date when, carrying out a local tradition, the Class of 2022 seniors would return to Robb Elementary to walk the halls at lunchtime. If the attacker's former classmates were his intended targets, they were spared because the seniors' visit occurred on May 23, 2022, the day before the tragic attack.

The attacker was at home with his grandparents on the morning of May 24th when he sent eerie online messages, including to an Instagram model he'd never met whom he had tagged in pictures of his guns the week before. "I'll text you in an hour," he wrote, "But you HAVE TO RESPOND. I got a lil secret. I wanna tell u ..."

Evidence shows that the attacker had been getting in increasing conflicts with his grandmother, and she had threatened to remove him from her mobile phone plan. On the morning of May 24th, she called customer service to do just that. After a nearly hour-long FaceTime conversation with his online acquaintance in Germany, the attacker began texting her live updates:

While these text messages have been circulated in media reports, those reports do not include a message deleted by the attacker's correspondent before the screenshot was taken. Just twenty-eight seconds after the attacker informed her that he



had shot his grandmother and intended to "shoot up" an elementary school, the German teenager replied with a single word: "Cool." 109

The attacker actually did shoot his grandmother in her face. Despite not having a driver's license, he then proceeded to steal her truck, abandoning her to seek help from a neighbor as he set out to complete his plan.

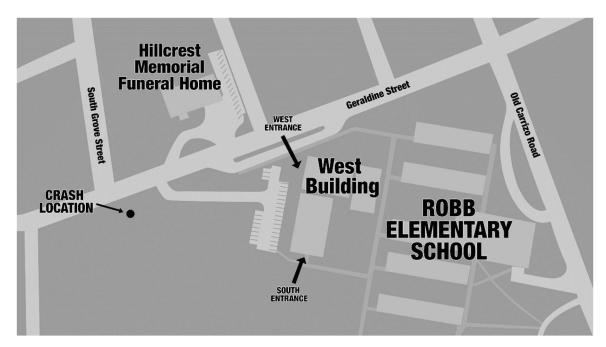
Driving toward Robb Elementary on South Grove Street, the attacker apparently lost control of the truck while approaching Geraldine Street, crashing the vehicle into a ditch.



Truck crashed by attacker near Robb Elementary.

Surveillance cameras at the nearby Hillcrest Memorial Funeral Home captured the crash on video at approximately 11:28 a.m. Two men saw the crash and began to walk from the funeral home, across Geraldine Street, to the location of the truck. The attacker emerged from the wreckage and began shooting toward the two men, who turned and fled back toward the funeral home. Immediately, a report was made to 911 about a man at that location shooting a gun.

¹⁰⁹ The above depiction of the text messages is one that has been posted by news outlets—an image of the teenager's phone taken after the shooting. The Committee reviewed data from the attacker's phones, which contained an additional message that appears to have been deleted in the image shared by the teenager.



Robb elementary and surroundings.

The attacker proceeded to advance toward Robb Elementary School. There was a five-foot fence around the perimeter of the school property. The attacker tossed a backpack over the fence, then he climbed over it, as documented on the funeral home's surveillance camera.

Coach Silva Alerts the School

Robb Elementary Coach Yvette Silva was outdoors at that time with a group of third graders, and she spotted the backpack being tossed over the fence followed by a person dressed in black climbing over it. She then saw the person raise a gun and begin to shoot. Coach Silva thought the attacker was shooting at her, and she ran from the field toward her classroom. She used her school radio to report: "Coach Silva to office, somebody just jumped over the fence and he's shooting." She ran toward a group of third graders on the school playground to tell them to lock down. She expected to then hear an announcement of a lockdown, but she did not hear one right away. ¹¹⁰ Meanwhile, the attacker proceeded to the fourth grade teachers' parking lot, continuing to fire his gun.

Law Enforcement Responds to Robb Elementary

While this was unfolding, Uvalde Police Department dispatch communicated to local law enforcement the initial 911 report from the funeral home about the vehicle crash. Numerous officers immediately began to respond in the direction of Robb Elementary School.

¹¹⁰ Committee testimony of Coach Yvette Silva, Robb Elementary (June 16, 2022).

Uvalde Police SSgt. Eduardo Canales, commander of the SWAT team, had been at Robb Elementary just an hour before for his son's end-of-year school ceremonies. While working at his office, other officers ran down the hallway and said there had been a vehicle accident with shots fired. He followed Lt. Mariano Pargas, the acting chief of the Uvalde Police. (Uvalde Police Chief Daniel Rodriguez was out of town that day, and on this occasion, Lt. Pargas had been designated as acting chief.) On arrival at the school, SSgt. Canales saw cars stopped and a man shooting a gun. He grabbed his rifle, put a magazine into it, and grabbed an extra magazine. He saw people at the funeral home pointing in the direction of the school, and he heard somebody say the attacker was in or near the building. SSgt. Canales entered an open gate where he met Lt. Javier Martinez, also of the Uvalde Police.¹¹¹

Lt. Martinez also heard the report of a vehicle accident with shots fired. He drove toward the intersection of Geraldine and South Grove, and as he arrived, he saw a man on the side of the road pointing. He jumped out of his car, popped the trunk to get his vest, then proceeded toward the west side of the school's west building.¹¹²

At around the same time, another Uvalde Police officer, Sgt. Daniel Coronado, also arrived on the scene. He wore his uniform and a vest, but he had no rifle plates for protection. Sgt. Coronado first stopped his patrol vehicle at the south end of South Grove Street where it dead-ends into Geraldine Street. He saw two Uvalde Police officers at the intersection who had arrived before him. Sgt. Coronado exited his vehicle, heard gunfire, and asked where the shooting was occurring. At first, the other officers said they did not know, and they could not see the attacker.¹¹³

One of those officers testified to the Committee that, based on the sound of echoes, he believed the shooter had fired in their direction.¹¹⁴ That officer saw children dressed in bright colors in the playground, all running away. Then, at a distance exceeding 100 yards, he saw a person dressed in black, also running away. Thinking that the person dressed in black was the attacker, he raised his rifle and asked Sgt. Coronado for permission to shoot.¹¹⁵

¹¹¹ Committee testimony of SSgt. Eduardo Canales, Uvalde Police (June 29, 2022).

¹¹² Committee testimony of Lt. Javier Martinez, Uvalde Police (June 29, 2022).

¹¹³ Committee testimony of Sgt. Daniel Coronado, Uvalde Police (June 20, 2022).

¹¹⁴ The Committee is unaware of any public reporting about this episode that has identified the police officer by name. The officer testified before the Committee. In light of the Committee's determination that the description of this episode by ALERRT—then widely reported by the media—is likely incorrect, we likewise decline to identify him by name for purposes of this report.

¹¹⁵ See, e.g., Committee testimony of Sgt. Daniel Coronado, Uvalde Police (June 20, 2022).

Sgt. Coronado testified he heard the request, and he hesitated. He knew there were children present. He considered the risk of shooting a child, and he quickly recalled his training that officers are responsible for every round that goes downrange.¹¹⁶

According to the officer who made the request, there was no opportunity for Sgt. Coronado to respond before they heard on the radio that the attacker was running toward the school. The officers testified to the Committee that it turned out that the person they had seen dressed in black was not the attacker, but instead it was Robb Elementary Coach Abraham Gonzales. Coach Gonzales had been on his way to the parking lot to leave the school after his lunch duty when he heard a gunshot and then Coach Garcia's report about the attacker over the radio. He told the children around him to run away. Robb Elementary fourth grade teachers Lynn

Prior to the suspect's entry into the building at 11:33:00, according to statements, a Uvalde Police Officer on scene at the crash site observed the suspect carrying a rifle outside the west hall entry. The officer, armed with a rifle, asked his supervisor for permission to shoot the suspect. However, the supervisor either did not hear or responded too late. The officer turned to get confirmation from his supervisor and when he turned back to address the suspect, he had entered the west hallway unabated. (OS per investigating officer interview).

ALERRT, Robb Elementary School Attack Response Assessment and Recommendations, at 4 (July 6, 2022). The ALERRT report appears to rely on an interview conducted by Texas Ranger Michael Schraub, who interviewed the officer in question on May 27, 2022. That report stated:

While in route to the scene Officer [A] advised Officer [B] located the shooter. However, the shooter was located a couple blocks away from the dispatch location. Officer [A] advised upon arrival, the shooter was shooting at Officer [B]. Officer [A] advised he positioned his patrol vehicle while ducking down and grabbing his rifle between the shooter and Officer [B]. Officer [A] advised the purpose was to protect Officer [B] while he exited his patrol vehicle. Officer [A] advised his vehicle was not struck by any projectiles.

Officer [A] advised upon exiting his patrol vehicle he observed the shooter in the distance. When he observed the shooter, Officer [A] advised there were kids in the background. Therefore, Officer [A] advised he hesitated shooting at the suspect. Officer [A] advised he requested permission to shoot, looked back very briefly at Sergeant Coronado, but never received a response. Upon looking back the direction of the shooter Officer [A] advised the shooter was gone.

DPS interview (May 27, 2022). In a subsequent DPS interview, the officer in question described the person he saw not as "the shooter" but as "a person in black toward the back of the school, but kids were behind that individual." DPS interview (June 13, 2022). These DPS interview reports do not include or support the detail suggested in the ALERRT report that a Uvalde police officer "observed the suspect carrying a rifle *outside the west hall entry.*" Based on its review of evidence to date, this Committee concludes that it is more likely that the officer saw Coach Gonzales dressed in black near a group of schoolchildren than that there was an actual opportunity to shoot the attacker from over 100 yards away, as assumed by ALERRT's partial report.

¹¹⁶ *Id*.

¹¹⁷ Part 1 of the ALERRT report, included the following narrative in its timeline:

¹¹⁸ DPS interview of Coach Abraham Gonzales (May 28, 2022).

Deming and Sasha Martinez each testified that Coach Gonzales yelled at their children to lock down as the attacker approached.¹¹⁹

Sgt. Coronado saw people at the funeral home also indicating the attacker was running toward the school. He returned to his car and drove east down Geraldine Street to attempt to flank and engage the attacker. He parked his car on the northeast corner of the campus and saw Uvalde CISD Police Chief Pete Arredondo arrive.¹²⁰

Just minutes before, Chief Arredondo had been in his office at Uvalde High School when he heard "shots fired" on the radio. He rushed out, heard something about Robb Elementary School, and drove toward the school. He arrived with his radios, but as he exited his vehicle, he was fumbling with them and they bothered him, so he dropped them by the school fence knowing that Sgt. Coronado, the sergeant on patrol, was there and "fully uniformed" with his radio.¹²¹

Robb Elementary School Locks Down

As the attacker approached the school and as law enforcement responders were arriving, staff at Robb Elementary were beginning to lock down, based mostly on word-of-mouth reports of an armed man on campus.

Principal Mandy Gutierrez had just finished an awards ceremony and was in her office when she heard Coach Silva's report over the radio. She attempted to initiate a lockdown on the Raptor application, but she had difficulty making the alert because of a bad wi-fi signal. She did not attempt to communicate the lockdown alert over the school's intercom. By phone, she called and spoke with Chief Arredondo, who told her, "shut it down Mandy, shut it down." She told head custodian Jaime Perez to ensure that all the doors were locked. She initially locked down in her own office, but she later moved to the cafeteria.

¹¹⁹ Committee testimony of Lynn Deming, Robb Elementary teacher (June 29, 2022); Committee testimony of Sasha Martinez, Robb Elementary teacher (June 29, 2022).

¹²⁰ Committee testimony of Sgt. Daniel Coronado, Uvalde Police (June 20, 2022).

¹²¹ Committee testimony of Chief Pete Arredondo, Uvalde CISD Police (June 21, 2022).

¹²² DPS interview of Mandy Gutierrez, Robb Elementary Principal (May 27, 2022).

¹²³ Committee testimony of Mandy Gutierrez, Robb Elementary Principal (June 16, 2022). Chief Arredondo told the Committee he had no recollection of talking to Principal Gutierrez. Committee testimony of Chief Pete Arredondo, Uvalde CISD Police, at 161 (June 21, 2022).

¹²⁴ Committee testimony of Mandy Gutierrez, Robb Elementary Principal (June 16, 2022).

Perez was in the cafeteria when he also heard Coach Silva's report on the radio. He immediately started to implement a lockdown, starting to lock doors from the outside. He heard shots and returned to the cafeteria where he remained for the duration of the incident.¹²⁵

In the west building, the fourth grade teachers in and around the building also started to initiate lockdown procedures upon hearing about the approaching attacker. Sasha Martinez taught a fourth grade class in Room 110. She and her class had left their classroom ahead of schedule for recess. They were on their way to the playground when they heard a coach yelling, pointing at the roof, and telling them to run. Martinez started to hear gunshots, and her students started running, some toward the cafeteria, others joining her toward the direction of their classroom in the west building. She then decided to take them to another open classroom in another building instead. 126

Lynn Deming in Room 104 was getting her class ready to go early to recess. She was standing at the south door of the west building waiting for a child to get a water bottle when her students heading out the south door reported that a coach was yelling at them. She heard "pow pow" and told her kids to get back into the classroom.¹²⁷

Elsa Avila taught fourth grade in Room 109. She had lined-up her students at 11:30 a.m. to go to recess. Some of the children reported to her that students from Deming's classroom were returning screaming and crying. She opened the door and did not see anybody, but she heard a female voice saying, "get in your rooms." She returned to her classroom and slammed the door shut, because otherwise the lock would not latch. She turned off the lights and closed the door. Her students knew what to do—they positioned themselves away from the windows and the doors. 128

Nicole Ogburn, the fourth grade teacher in Room 102 at the southwest corner of the west building, heard a sound like metal on brick from the outside. She looked out her window and saw a man in dark clothes with a gun and a bag walking up the sidewalk. She told her students to get down. She heard shots coming from the outside into the window, and she hid underneath a curtain in the room.¹²⁹

¹²⁵ Committee testimony of Jaime Perez, Robb Elementary head custodian (June 16, 2022).

¹²⁶ Committee testimony of Sasha Martinez, Robb Elementary teacher (June 29, 2022). Martinez commented that she thought a lot of time passed between hearing gunshots and then later receiving the Raptor alert. *Id.*

¹²⁷ Committee testimony of Lynn Deming, Robb Elementary teacher (June 29, 2022).

¹²⁸ Committee testimony of Elsa Avila, Robb Elementary teacher (June 30, 2022).

¹²⁹ Committee testimony of Nicole Ogburn, Robb Elementary teacher (June 29, 2022).

In Room 105, fourth grade teacher Jennieka Rodriguez received a Raptor alert of a lockdown at 11:32 a.m. Her students knew what to do and where to hide. She stepped outside and checked her classroom door to ensure it was locked. As she did so, she looked across the hall and locked eyes with another fourth grade teacher, Ms. Garcia, who was locking the door to her classroom, Room 112.¹³⁰

The Attacker Enters the West Building

After walking north along the west side of the west building, as observed by Ms. Ogburn, ¹³¹ the attacker entered the unlocked west door of the west building. ¹³² The exterior doors on the east and south sides of the building also were unlocked, such that even if the west door had been locked, the attacker still would have had the ability to enter the building, but his progress likely would have been slowed.

After passing through the west door, the attacker walked east into the building, then turned to his right, south into a hallway. He proceeded down to the vestibule for Rooms 111 and 112 and turned left to face those classroom doors.

The Attacker Enters Rooms 111 & 112

The surveillance video in the hallway shows that the attacker fired his gun toward Rooms 111 and 112 at approximately 11:33 a.m. He walked forward toward the doors and could be seen stepping back into the hallway before proceeding again into one of the classrooms.

We cannot be certain which of the doors the attacker entered. But, based on the evidence available to the Committee, it is most likely that the attacker found the door to Room 111 unlocked or unsecured and entered through that door.¹³³ There is no evidence that the attacker

¹³⁰ Committee testimony of Jennieka Rodriguez, Robb Elementary teacher (June 29, 2022).

¹³¹ Committee testimony of Nicole Ogburn, Robb Elementary teacher (June 29, 2022).

¹³² The Committee received some evidence that this door was usually kept locked, as it was supposed to be. Committee investigator interview of Arnulfo Reyes, Robb Elementary teacher (June 30, 2022). The Committee also heard some evidence that staff often propped open the door with a rock so that teachers could run out and come back in. See, e.g., Committee testimony of Nicole Ogburn, Robb Elementary teacher (June 29, 2022). The surveillance camera inside the west building recorded that someone had propped open the west door with a rock earlier on May 24. See Robb Elementary surveillance video. Apparently in response to the lockdown alert, a teacher came into the hallway and removed the rock. Id. When the attacker arrived, the door was not propped open by a rock—but because the door was unlocked, he was still able to open the door and enter the building. Id.

¹³³ As discussed later in this report, responding officers assumed, but did not verify, that the doors to Rooms 111 and 112 were locked because of school policies and door designs intended to ensure locked classroom doors. Acting on that assumption, officers spent a great amount of time seeking a master key that could open a door they presumed to be locked. Other information described in this report casts doubt on the suggestion the door

made a forced entry through either door. As noted previously, there is evidence that Ms. Garcia, a teacher in Room 112, locked her classroom door as witnessed by the teacher in Room 105 across the hall, Ms. Rodriguez.¹³⁴

As for Room 111, there was substantial evidence that door did not secure properly, The teacher in Room 111, Arnulfo Reyes, knew this, and on several occasions reported the condition of the door to the school. There was also evidence that teachers and students throughout the fourth grade knew the condition of Room 111's door, as they regularly would enter the door to access the printer in that room. Reyes has no recollection of ever receiving a lockdown alert or any memory that he undertook the special effort needed to get his classroom door to lock before the arrival of the attacker.

According to an analysis provided to the Committee, after entering the attacker spent about 2½ minutes rapidly firing over 100 rounds between the two rooms, 139 ultimately killing many innocent victims. 140 Law enforcement discovered a Hellfire trigger system in the room with the attacker, but based on the evidence provided to date, the Committee is unable to determine whether it was used to increase the weapon's rate of firing. The Department of Public Safety

was actually locked. The Committee has been advised that none of the Border Patrol agents who used a key and ultimately opened the door were wearing body cameras which might have shed additional light on this question.

¹³⁴ Committee testimony of Jennieka Rodriguez, Robb Elementary teacher (June 29, 2022). One of the surviving students in Room 112 also reported that she saw Ms. Garcia lock the door. DPS interview of Khloie Torres (June 2, 2022).

¹³⁵ Committee testimony of Mandy Gutierrez, Robb Elementary Principal (June 16, 2022); *see also* interview of Arnulfo Reyes, Robb Elementary teacher (June 30, 2022).

¹³⁶ Committee testimony of Nicole Ogburn, Robb Elementary teacher (June 29, 2022); see also interview of Arnulfo Reyes, Robb Elementary teacher (June 30, 2022).

¹³⁷ DPS (Elizondo) interview of Arnulfo Reyes, Robb Elementary teacher (June 8, 2022).

¹³⁸ E.g., DPS (Williamson/Benitez) interview of Arnulfo Reyes, Robb Elementary teacher (May 27, 2022). Reyes told the Committee's investigators that he believes the attacker entered through Room 112 and from there shot through the wall into Room 111. Interview of Arnulfo Reyes, Robb Elementary teacher (June 30, 2022). The Committee finds that suggestion to be unlikely for the reasons previously explained about why Room 112 likely was locked and Room 111 likely was unlocked. It is more likely, and otherwise consistent with his account, that Reyes heard bullets fired by the attacker from outside in the hallway, through the doors, and into Room 111.

¹³⁹ Cf. Texas Department of Public Safety (@TexasDPS), https://twitter.com/TxDPS/status/1539256179234332673 (June 21, 2022) (reference materials for testimony before Texas Senate Special Committee to Protect All Texans).

¹⁴⁰ See also Committee interview of DPS Director Col. Steven C. McCraw (June 9, 2022) (incident timeline). The analysis provided to the Committee strongly suggests that of approximately 142 total rounds fired by the attacker in the building, approximately 21 of those rounds can be identified as being fired after officers entered the building. The first 11 officers to enter the building did so over the course of approximately 6 seconds. It thus appears to be virtually certain that over 100 rounds were fired before the arrival of the first responders.

has advised the Committee there is no indication that the Hellfire device was used by the attacker. It is also possible that it was used. ¹⁴¹

Terrified teachers and students throughout the west building heard this extended burst of gunfire, as did law enforcement officers who were arriving on the campus and closing in on the west building. Responders heard the tail end of this gunfire as they entered the building through the south and west doors. During those two and a half minutes of gunfire, it is likely that one of the bullets passed through the walls and struck Ms. Avila, the teacher in Room 109. 144

Also during this time, at approximately 11:36 a.m., Uvalde Police Department dispatch received a call reporting a woman "shot in the head on Diaz Street." ¹⁴⁵

First Law Enforcement Approaches & Enters

After the attacker already had fired over 100 shots in Robb Elementary's west building, two separate groups of officers converged on the building at the same time from different directions. From the time of their initial entry and over the course of the next five minutes, the attacker fired approximately 16 additional rounds.

On the south side of the building, Chief Arredondo and Officer Adrian Gonzalez of the Uvalde CISD Police and Uvalde Police Officer Page and Sgt. Coronado approached. Officers Page and Gonzalez were the first to enter, ¹⁴⁶ followed by Chief Arredondo, then by Sgt.

¹⁴¹ U.S. Dep't of Justice, Bureau of Alcohol, Tobacco, Firearms and Explosives, Report of Investigation #13 (June 2, 2022).

¹⁴² E.g., Committee testimony of Sgt. Daniel Coronado, Uvalde Police (June 20, 2022).

¹⁴³ E.g., Committee testimony of Lt. Javier Martinez, Uvalde Police (June 29, 2022); see also Robb Elementary surveillance video.

¹⁴⁴ See Committee testimony of Elsa Avila, Robb Elementary teacher (June 30, 2022).

¹⁴⁵ Uvalde County Sheriff Ruben Nolasco testified to the Committee that while he was on his way to respond to the report of shots fired in the vicinity of Robb Elementary, he learned about the shooting of a woman on Diaz Street (who turned out to be the attacker's grandmother) from a man in a vehicle who flagged him down in the street. *See* Uvalde Police Department Call Sheet Report (May 24, 2022); Committee testimony of Uvalde County Sheriff Ruben Nolasco (July 11, 2022). Other information provided to the Committee has suggested that Sheriff Nolasco learned about the shooting on Diaz Street by other means, and perhaps earlier than he has acknowledged. In a desire to put this issue to rest, and to foreclose the suggestion that earlier reporting of the attacker's assault on his grandmother could have led to an earlier law enforcement intervention, the Committee has requested records from Sheriff Nolasco's mobile phones to confirm that he was not contacted directly for assistance on Diaz Street. The Committee has not yet received these records. The issue is important if a more timely report of the Diaz Street shooting could have prompted an earlier call from dispatch for law enforcement response to the area or an earlier Raptor alert at the school.

¹⁴⁶ E.g., Committee testimony of Officer Adrian Gonzalez, Uvalde CISD Police (June 20, 2022); DPS interview of Officer Donald Page, Uvalde Police (May 25, 2022).

Coronado. Officers Page and Gonzales both heard rounds as they were approaching. ¹⁴⁷ So did Sgt. Coronado, who yelled "shots fired." ¹⁴⁸

Meanwhile, on the north side of the building, Lt. Martinez and Ssgt. Canales of the Uvalde Police entered the building first, followed by Uvalde Police Officer Louis Landry. Lt. Martinez told a DPS investigator that he heard gunfire from inside the building, then he entered. He testified to the Committee that he suspected the attacker was inside shooting,



West Building, Robb Elementary.

 $^{^{147}}$ E.g., Committee testimony of Officer Adrian Gonzalez, Uvalde CISD Police (June 20, 2022); DPS interview of Officer Donald Page, Uvalde Police (May 25, 2022).

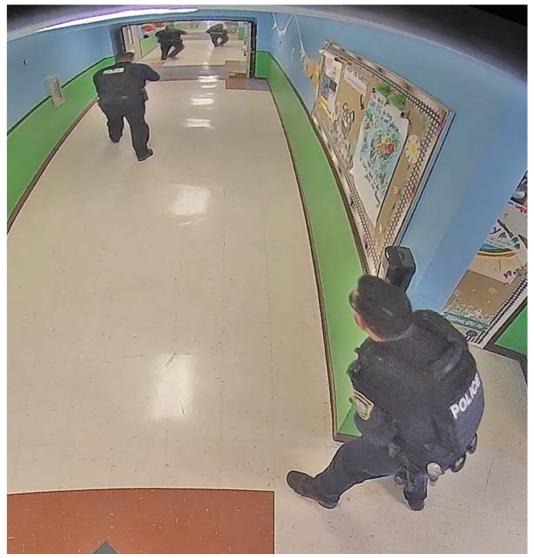
¹⁴⁸ E.g., Committee testimony of Sgt. Daniel Coronado, Uvalde Police (June 20, 2022); see also Sgt. Coronado's body-worn camera footage (11:36).

¹⁴⁹ DPS interview of Officer Louis Landry, Uvalde Police (May 26, 2022); see also Robb Elementary surveillance video.

¹⁵⁰ DPS interview of Lt. Javier Martinez, Uvalde Police(May 25, 2022); see also Robb Elementary surveillance video.

but that as he entered the building it was definitely quiet, with no screaming or crying. He said that on arrival inside the building, he heard "a few muffled shots."¹⁵¹

The evidence establishes that as they arrived at the west building, the initial responders knew there had been gunfire inside the building. They heard it as they were approaching. When they entered, they could see a cloud of debris in the hallway from drywall, as well as bullet holes in the walls and spent rifle casings on the floor. Yet the testimony received by the Committee also indicated that none of these initial responders recalled hearing screams or having any contemporaneous understanding, as they arrived in the building, that teachers and students just then had been shot inside the classrooms.



Uvalde Police officers enter from north end of hallway.

¹⁵¹ E.g., Committee testimony of Lt. Javier Martinez, Uvalde Police (June 29, 2022); see also Robb Elementary surveillance video.

After entering the west building, the two separate groups of officers converged on Rooms 111 and 112. Coming from the south, Officer Page saw smoke and fog and observed that both classrooms were dark. Officer Gonzales remembers smelling gunpowder, saying that it looked smoky or cloudy, like someone set off a fire extinguisher.¹⁵² Chief Arredondo made similar observations of smoke, and he also saw spent casings on the ground.¹⁵³ As Sgt. Coronado followed this group and Chief Arredondo from the south, he heard no more active gunfire as recorded on his body camera. It was quiet, and he could see bullet holes through the sheetrock.¹⁵⁴ On Sgt. Coronado's body camera footage, another officer can be heard saying, "it's an AR."¹⁵⁵ Upon entering the building, the officers tried but were unable to communicate on their radios. Officer Page stopped near Rooms 111 and 112,¹⁵⁶ and the school surveillance video suggests that the officers coming north from the south door were the first to reach the near vicinity of Rooms 111 and 112.

Simultaneously, Lt. Martinez followed by SSgt. Canales entered the hallway and approached Rooms 111 and 112, with Lt. Martinez approaching along the east wall and SSgt. Canales following along the west wall, as recorded on SSgt. Canales's body camera and the school surveillance video. Immediately behind them, four additional officers entered the building and remained in the north hallway.

At approximately 11:37 a.m., the officers converged from both sides of the hallway on Rooms 111 and 112. Coming from the north, Lt. Martinez peered into the vestibule for Rooms 111 and 112, and he faced gunfire, getting grazed by fragments of building material on the top of his head.¹⁵⁷ He immediately retreated to the north end of the hallway.¹⁵⁸ On the opposite side

¹⁵² E.g., Committee testimony of Officer Adrian Gonzalez, Uvalde CISD Police (June 20, 2022).

¹⁵³ Committee testimony of Chief Pete Arredondo, Uvalde CISD Police, at 87 (June 21, 2022). Chief Arredondo testified that he recalled seeing "the locking mechanism" for the door to Room 111, or what he calls "a thumb, the locking mechanism that goes in the throw." He explained, "there's a small gap in between the door and the frame, and you could see, you know, a fraction of an inch. I have an image in my head of seeing that—that throw." *Id.* at 97. For the reasons explained above, the Committee finds it is most likely that the door to Room 111 was not properly or effectively locked.

¹⁵⁴ E.g., Committee testimony of Sgt. Daniel Coronado, Uvalde Police (June 20, 2022).

¹⁵⁵ Sgt. Coronado's body-worn camera footage (11:36).

¹⁵⁶ DPS interview of Uvalde Police Department Officer Donald Page (May 25, 2022).

¹⁵⁷ ALERRT, Robb Elementary School Attack Response Assessment and Recommendations (July 6, 2022) (stating that Lt. Martinez and Ssgt. Canales were hit by "building material fragments caused by the suspect's rounds passing through the walls," citing "Investigating Officer Interview" and "Internal School Surveillance").

¹⁵⁸ See Robb Elementary surveillance video (11:36). The recent ALERRT report states that "[o]nce the officers retreated, they should have quickly made a plan to stop the attacker and gain access to the wounded," noting "[t]here were several possible plans that could have been implemented." "Perhaps the simplest plan," according to ALERRT, "would have been to push the team back down the hallway and attempt to control the classrooms

of the hall, fragments also hit SSgt. Canales on his ear. He likewise retreated and exited the building on the west side. No shots were fired at that time toward the attacker by the law enforcement responders.

```
What Happened for the Next 73 Minutes?
```

Like the initial approach into the west building, the remainder of law enforcement actions at Robb Elementary School until the ultimate breach of the classroom and neutralization of the attacker was a tale of two separate responses on the north and south sides of the hallway.

On the South ...

After the attacker fired on the responders, Chief Arredondo noticed the light on in Room 110—the room immediately south of Room 111 which was used by Ms. Martinez, who had taken her class out of the building early for recess. Chief Arredondo wondered if there could be a threat in Room 110. The door was either open or unlocked. He entered to clear the room, and he saw holes in the wall. The room was vacant. He told the Committee he thought, "There's no babies in here. It's awards day." He testified that he prayed that if Room 110 was empty, the children might be gone from the rooms occupied by the attacker as well.

Although the encounter had begun as an "active shooter" scenario, Chief Arredondo testified that he immediately began to think of the attacker as being "cornered" and the situation as being one of a "barricaded subject" where his priority was to protect people in the other classrooms from being victimized by the attacker.¹⁶⁰

With the benefit of hindsight, we now know this was a terrible, tragic mistake.

Testifying before the Committee, Chief Arredondo explained his thinking on this subject at the time as follows:

We have this guy cornered. We have a group of officers on ... the north side, a group of officers on the south side, and we have children now that we know in these other rooms. My thought was: We're a barrier; get these kids out -- not the hallway, because the bullets

from the windows in the doors." The report explains the purported simplicity of the plan by noting: "Any officer wearing rifle-rated body armor (e.g., plates) would have assumed the lead as they had an additional level of protection." ALERRT, Robb Elementary School Attack Response Assessment and Recommendations (July 6, 2022). A problem with ALERRT's depiction of its "simplest plan" is that no officer present was wearing "rifle-rated body armor (e.g., plates)." The Committee agrees the officers should have attempted to breach the classrooms even without armor, but it is inflammatory and misleading to release to the public a report describing "plans that could have been implemented" that assume the presence of protective equipment that the officers did not have.

¹⁵⁹ Committee testimony of Chief Pete Arredondo, Uvalde CISD Police (June 21, 2022).

¹⁶⁰ *Id*.

are flying through the walls, but get them out the wall – out the windows, because I know, on the outside, it's brick.

[T]o me ... once he's ... in a room, you know, to me, he's barricaded in a room. Our thought was: "If he comes out, you know, you eliminate the threat," correct? And just the thought of other children being in other classrooms, my thought was: "We can't let him come back out. If he comes back out, we take him out, or we eliminate the threat. Let's get these children out."

It goes back to the categorizing. ... I couldn't tell you when -- if there was any different kind of categorizing. I just knew that he was cornered. And my thought was: "... We're a wall for these kids." That's the way I looked at it. "We're a wall for these kids. We're not going to let him get to these kids in these classrooms" where ... we saw the children. ¹⁶¹

Chief Arredondo's testimony about his immediate perception of the circumstances is consistent with that of the other responders to the extent they uniformly testified that they were unaware of what was taking place behind the doors of Rooms 111 and 112. They obviously were in a school building, during school hours, and the attacker had fired a large number of rounds from inside those rooms. But the responders testified that they heard no screams or cries from within the rooms, and they did not know whether anyone was trapped inside needing rescue or medical attention. Not seeing any injured students during their initial foray into the hallway, Sgt. Coronado testified that he thought that it was probably a "bailout" situation. ¹⁶²

Chief Arredondo and other officers contended they were justified in treating the attacker as a "barricaded subject" rather than an "active shooter" because of lack of visual confirmation of injuries or other information. Chief Arredondo explained his reasoning for not continuing an active shooter-style response, telling the Committee:

[W]hen there's a threat ... you have to visibly be able to see the threat. You have to have a target before you engage your firearm. That was just something that's gone through my head a million times[G]etting fired at through the wall ... coming from a blind wall, I had no idea what was on the other side of that wall. But ... you eliminate the threat when you could see it. ... I never saw a threat. I never got to ... physically see the threat or the shooter. ¹⁶³

This "barricaded subject" approach never changed over the course of the incident despite evidence that Chief Arredondo's perspective evolved to a later understanding that fatalities

¹⁶¹ Id. at 122, 125-25.

¹⁶² E.g., Committee testimony of Sgt. Daniel Coronado, Uvalde Police (June 20, 2022). Chief Arredondo also testified that the possibility of a bailout "came over my mind at some point … because they happen so often, and there's been a few that were armed." Committee testimony of Chief Pete Arredondo, Uvalde CISD Police, at 49 (June 21, 2022).

¹⁶³ Committee testimony of Chief Pete Arredondo, Uvalde CISD Police (June 21, 2022).

and injuries within the classrooms were a very strong probability.¹⁶⁴ He effectively conceded his error when asked what he would have done differently had he known injured victims were in the classroom. Chief Arredondo responded to the Committee: "I guess, if I knew there was somebody in there, I would have—we probably would have rallied a little more, to say, 'Okay, someone is in there." 165

Chief Arredondo went to Room 109, found it locked and dark, saw a child's head, and realized there were students in that room. 166 Officer Gonzales asked Chief Arredondo if he wanted to activate the SWAT team, which he confirmed, so Gonzales then stepped out and made the call. 167 As mentioned earlier, however, the head of the Uvalde Police SWAT team already was in the building.

Chief Arredondo then used his mobile phone to call the Uvalde Police. The Department of Public Safety supplied the following transcription of that call:

Hey..hey it's Arredondo..it's Arredondo can you hear me? No I have to tell you where we're at..it's an emergency right now. I'm inside the building, I'm

dispatcher can be heard talking in the background asking what room number

Is the teacher with him? Is the teacher with him? Is the teacher with him? Is she in the same room as him? Can you hear me? Ma'am?

dispatcher: I'm right here

Ma'am, is the teacher with him? In his classroom?

dispatcher: She's in another classroom she's in room 102. Another person possible shot across from her.

Okay, we have him in the room. he's got an AR15, he's shot a lot. He's in the room, he hasn't come out yet. We're surrounded, but I don't have a radio

dispatcher confirms SWAT location

Yes and they need to be outside of this building prepared. Because we don't have enough fire power right now it's all pistol and he has an AR15. If you

dispatcher asked if you can stay on the phone with me as long as you can

I am but I'm gonna drop it when he comes out of that door. Alright.

dispatcher advises over the radio that 401 has the shooter in 111 or 112. He's going to be armed with a rifle. He's requesting SWAT by the funeral home.

¹⁶⁴ For example, later in the incident, Sgt. Coronado's body-worn camera footage recorded that somebody asked, at 12:34 p.m., "we don't know if he has anyone in the room with him, do we?" Chief Arredondo responded, "I think he does. There's probably some casualties." Sgt. Coronado agreed, saying "yeah, he does ... casualties." Then at 12:41 p.m.: "Just so you understand, we think there are some injuries in there."

¹⁶⁵ Committee testimony of Chief Pete Arredondo, Uvalde CISD Police (June 21, 2022).

¹⁶⁶ Id.

¹⁶⁷ Committee testimony of Officer Adrian Gonzalez, Uvalde CISD Police (June 20, 2022); see also Committee testimony of Chief Pete Arredondo, Uvalde CISD Police (June 21, 2022).

So. So I need you to bring a radio for me, and give me my radio for me. I need to get one rifle. Hold on. I'm trying to set him, I'm trying to set him up.

By 11:42 a.m., Constable Johnny Field had arrived on the north end of the hallway.¹⁶⁸ Constable Field saw Chief Arredondo on the other end and held up his phone. Chief Arredondo called and began communicating with him by phone as his primary contact on the north end.¹⁶⁹ They discussed the need to evacuate children from the building,¹⁷⁰ and Chief Arredondo decided to accomplish that by breaking windows.¹⁷¹ Officers Gonzales and Page proceeded to start breaking classroom windows and helping to evacuate students from classrooms.¹⁷² Chief Arredondo found another unlocked classroom on the east side of the hallway with a teacher and students locked down inside, and he told them to stay down.¹⁷³

Meanwhile, Sgt. Coronado had exited the building through the south door and made his own report by radio.¹⁷⁴ He requested shields and flashbangs from the police department, and he asked for helicopter support and ballistic shields from the Department of Public Safety. Agreeing with Chief Arredondo's assessment, he reported the shooter was "contained" inside the building and "barricaded in one of the offices." Dispatch asked Sgt. Coronado if the classroom door was locked. He responded he was not sure, but that they had a Halligan tool to break it. Radio traffic indicated the attacker was in Ms. Mireles's classroom (Room 112) and asked whether her students were inside. In response, Sgt. Coronado requested a mirror to look around corners. A voice on the radio stated that "the class should be in session." ¹⁷⁵

After the initial responders took fire from the attacker, Sgt. Coronado remained outside the building on the south and west sides for a total of approximately 30 minutes, ¹⁷⁶ regularly

¹⁶⁸ See Robb Elementary surveillance video.

¹⁶⁹ Testimony of Constable Johnny Field, Uvalde County Pct. 1 (June 30, 2022); Testimony of Chief Pete Arredondo, Uvalde CISD Police (June 21, 2022).

¹⁷⁰ Testimony of Constable Johnny Field, Uvalde County Pct. 1 (June 30, 2022).

¹⁷¹ Testimony of Chief Pete Arredondo, Uvalde CISD Police (June 21, 2022).

¹⁷² Testimony of Officer Adrian Gonzalez, UCISD Police (June 20, 2022) (stating that after calling for SWAT, he began to help evacuating children on his own initiative and received no further orders from Chief Arredondo).

¹⁷³ Testimony of Chief Pete Arredondo, Uvalde CISD Police (June 21, 2022).

¹⁷⁴ Sgt. Coronado's body-worn camera footage (11:38).

¹⁷⁵ Sgt. Coronado's body-worn camera footage (11:43).

¹⁷⁶ Sgt. Coronado's body-worn camera documented his activity. At 11:44 a.m., a responder asked by radio where he was needed, and received direction to head to the south side of the school. The responder then stated that a lot of people were pulling up by the funeral home. Sgt. Coronado responded to have some officers available to keep everybody back. At 11:48 am he suggested locking down the high school and all the other schools. At 11:49 a.m., a little more than 10 minutes after their initial encounter with the attacker, Sgt. Coronado warned arriving officers about a doorway and a "fatal funnel." He asked them to prop open the south door.

advising other officers to be careful about potential crossfire or a "fatal funnel" in the hallway and assisting the evacuation of students and teachers through windows on the west side of the building. When some newly arrived responders appeared to suggest that the officers should clear out of the south side of the hallway because United States Border Patrol Tactical Unit (BORTAC) responders were operating on the opposite end, Sgt. Coronado responded, "Chief is in there, Chief is in charge right now," suggesting both that Chief Arredondo was in control and in communication with the other side of the building.

While Sgt. Coronado was outside, his body camera recorded several people commenting on the need to find a master key to the classrooms. Once Sgt. Coronado returned inside the south side of the hallway, he found Chief Arredondo on his phone also asking for a key, which was a primary focus of his attention for the next 40 minutes. Chief Arredondo personally tried all of one large set of keys brought to him, ¹⁷⁸ and when Sgt. Coronado cautioned him to stay clear of the hallway and the "fatal funnel," Chief Arredondo responded, "just tell them to f***ing wait."¹⁷⁹

Much of this time was spent by Chief Arredondo on the phone with Constable Field. He issued a series of additional requests for equipment and support, including snipers, ¹⁸⁰ a master key, ¹⁸¹ and breaching tools, ¹⁸² repeatedly referencing the need for a key and breaching tools before they could attempt to enter the classrooms with the attacker. While waiting, he also periodically attempted to communicate with the attacker in English and Spanish, including immediately after four shots were fired inside the classroom at 12:21 p.m.

Despite all of the discussion of breaching tools, Chief Arredondo testified no one made him aware when one arrived at the building.¹⁸³

Chief Arredondo prioritized making certain all other classrooms in the building were cleared of teachers and students, including the evacuation of Room 109, where the attacker had shot Ms. Avila through the walls. ¹⁸⁴ In the context of this evacuation, Chief Arredondo commented

¹⁷⁷ Sgt. Coronado's body-worn camera footage.

¹⁷⁸ Sgt. Coronado's body-worn camera footage (12:17 p.m.).

¹⁷⁹ *Id.* (12:17 p.m.).

¹⁸⁰ *Id.* (12:14 p.m.).

¹⁸¹ *Id.* (12:16 p.m.).

¹⁸² Id. (12:21 p.m.); see also Committee testimony of Chief Pete Arredondo, Uvalde CISD Police (June 21, 2022).

¹⁸³ Committee testimony of Chief Pete Arredondo, Uvalde CISD Police (June 21, 2022).

¹⁸⁴ See Sgt. Coronado's body-worn camera footage (12:26 p.m.).

that "people are going to ask why we're taking so long," and, in an apparent reference to the ongoing evacuations, that they were trying to care of "the rest of the lives first." ¹⁸⁵

In addition to seeking keys and a breaching tool, the other predominant theme on the south side of the building was waiting for BORTAC to breach the classrooms. Chief Arredondo discussed with Constable Field various means of assisting the breach, such as by using a sniper or flashbangs to kill or distract the attacker. 186

Beginning around 12:30 p.m., various officers entered through the south door and walked by Chief Arredondo and Sgt. Coronado, stacking up south of Rooms 111 and 112 and on the west side of the hallway, anticipating a move to breach the classrooms.¹⁸⁷



Responders stack in hallway south of Rooms 111 & 112.

At 12:45 p.m., somebody commented that a Ranger had a set of keys that was being tested. And finally, at 12:50 p.m., a team of officers made entry into the classrooms and killed the attacker, with officers stationed in the south part of the hallway quickly falling in behind them and entering Rooms 111 and 112.

¹⁸⁵ Other public reports about this particular quote appear to be inaccurate.

¹⁸⁶ Sgt. Coronado's body-worn camera footage (12:17 p.m.).

¹⁸⁷ Sgt. Coronado's body-worn camera footage; *see also* Committee testimony of Chief Pete Arredondo, Uvalde CISD Police (June 21, 2022); Committee testimony of Trooper Joshua Bordovsky, Tex. Dep't of Public Safety (June 20, 2022).

Chief Arredondo testified that the only direction he gave to the north side of the building, through Constable Field, was for them to evacuate the kids and to test the keys before trying to go into the room with the attacker. He said he did not make any decision for BORTAC to breach the classrooms.¹⁸⁸

On the North ...

Rewinding the clock to the point at which the attacker shot at the initial responders in the building, there were three Uvalde Police officers who led the way down the hallway from the north side of the building: Lt. Martinez, followed by SSgt. Canales, followed by Officer Landry. Building fragments hit Lt. Martinez and SSgt. Canales as the attacker shot into the hallway, and all three officers retreated to the north end.

As Ssgt. Canales ran out, his body camera documented the presence of multiple officers in the north hallway and a Department of Public Safety trooper stationed at the door as he exited to the west. Ssgt. Canales stated "we got to get in there," and he made a phone call requesting more help. Uvalde Police Officer Landry, who had been third in line on the north side behind Lt. Martinez and Ssgt. Canales, also exited the building on the west side, then moved to the south side of the building where he began helping to clear classrooms and waiting for specialized teams to arrive. He initial shock of taking gunfire, Lt. Martinez returned south back down the hallway. Following active shooter training, he began to advance again toward Rooms 111 and 112 in an evident desire to maintain momentum and to "stop the killing," but this time no other officers followed him. Several law enforcement officers suggested to the Committee that if others had followed him as backup, Lt. Martinez might have made it back to the classroom doors and engaged. Later, he helped to evacuate children from classrooms and moved to the south side of the building, and ultimately he was part of the stack of officers on that side of the hallway when BORTAC finally breached the classrooms.

The school surveillance camera installed where the north-south hallway intersects the east-west hallway at the north end of the building captured the movement and activity of law enforcement officers on the north side of the building. From that perspective, the period from 11:37 a.m., when Lt. Martinez, Ssgt. Canales, and Officer Landry made their retreat from the attacker's gunfire, to 12:50 p.m., when a BORTAC-led stack finally made entry into the

¹⁸⁸ Committee testimony of Chief Pete Arredondo, Uvalde CISD Police (June 21, 2022).

 $^{^{189}}$ See Ssgt. Canales's body-worn camera footage.

¹⁹⁰ DPS interview of Uvalde Police Department Officer Louis Landry (May 26, 2022).

classrooms, saw the movement of dozens of officers from a variety of law enforcement agencies in and out of the north hallway, positioning and preparing themselves for the eventual breaching effort.

At first, responders from the Uvalde Police Department, including the acting chief of police on that day, Lt. Mariano Pargas, dominated the north end of the building. Lt. Pargas, who was one of the earliest responders, testified that he was never in communication with Chief Arredondo, and that he was unaware of any communication with law enforcement officers on the south side of the building. He told the Committee he figured that Chief Arredondo had jurisdiction over the incident and that he must have been coordinating the law enforcement response—and that the Uvalde Police were there to assist. He did not coordinate with any of the other agencies that responded, such as the Uvalde Sheriff's Office and the Department of Public Safety. Lt. Pargas did receive a phone call from the chief of the Uvalde Police, who was out of town on vacation, who called to tell him to set up a command post right away. Lt. Pargas testified that he went to the back of the funeral home to start a command post, that the funeral home provided an office, and that then he went back outside to try to keep up with what was going on.¹⁹¹ This did not result in the establishment of an effective command post.

Lt. Pargas was present when a Uvalde CISD officer, Ruben Ruiz, entered through the west door and stated, "she says she is shot." Officer Ruiz was referring to his wife, Ms. Mireles, who was one of the teachers in Room 112. Officer Ruiz was escorted away from the building. Lt. Pargas also testified he heard on the radio about 911 calls that had come from inside the classrooms, and he told the Committee that it was his understanding that officers on the north side of the building understood there were victims trapped inside the classroom with the attacker. According to Lt. Pargas, while nobody said it, the officers on the north side of the building were waiting for other personnel to arrive from Department of Public Safety or BORTAC, with better equipment like rifle-rated shields. 192

As responders continued to arrive on the scene, officers stationed outside the building directed them to assist on the perimeter. Special Agent Luke Williams of the Department of Public Safety testified that upon his arrival he disregarded a request that he assist at the perimeter, and instead he proceeded into the east door on the north side of the building. He began to clear rooms along the north hallway, and he found a student hiding in the boys' restroom. The student had his legs up so as not to be seen, and as he had been trained to do, he demanded

¹⁹¹ Committee testimony of Lt. Mariano Pargas, Jr., Uvalde Police (June 29, 2022).

¹⁹² *Id*.

that Special Agent Williams confirm he was with law enforcement, which he did by showing his badge under the stall.

As Special Agent Williams then approached the intersection of the hallways from the east where a group of officers was positioned at the west side of the intersection with weapons pointed south, he heard somebody ask, "y'all don't know if there's kids in there?" Special Agent Williams interjected, "if there's kids in there we need to go in there."



Responders positioned in north end of hallway (Special Agent Williams's body camera).

An officer who had been positioned in the hallway responded to Special Agent Williams that whoever was in charge would figure that out. Another officer pointed out to him that his position on the east side of the intersection was creating a crossfire situation relative to the group of officers pointing their weapons toward Rooms 111 and 112 from the south. Special Agent Williams departed to continue clearing other classrooms. 193

Between 11:52 a.m. and 12:21 p.m., the surveillance video shows four different

ballistic shields arriving in the building. Importantly, however, only the last shield, furnished by the U.S. Marshals, was rifle-rated. The Committee heard evidence that the rifle-rated shield was the only one that would have provided meaningful protection to officers against the attacker's AR-15 rifle. The Committee received no evidence that anyone told Chief Arredondo or anyone else on the south side of the building about the arrival of the rifle-rated shield.

Just before 12:30 p.m., there was a burst of activity on the north side. A group of officers moved past the position previously established at the north hallway intersection, and they began to establish a stack close to the north side of Rooms 111 and 112. Viewed from the south, Sgt. Coronado announced the arrival of BORTAC.¹⁹⁴ Another group of officers began to stage medical triage equipment in the east side of the north hallway. This indicates that BORTAC likely assumed tactical command of the incident at this time.

¹⁹³ See Special Agent Williams's body-worn camera footage.

¹⁹⁴ Sgt. Coronado's body-worn camera footage (12:29 p.m.).

BORTAC Acting Commander Paul Guerrero came to the north side of the building upon his arrival at Robb Elementary. In a post-incident statement, he said he was advised "that the subject had possibly shot multiple children and was still in the classroom." He requested surveillance through the back windows of Rooms 111 and 112 to possibly deploy gas as they made entry. He then went to retrieve a Halligan tool from his car.¹⁹⁵ The school's surveillance camera shows the arrival of a Halligan breaching tool at 12:35 p.m..¹⁹⁶ The Committee received no evidence that the arrival of the breaching tool ever was communicated to Chief Arredondo or anyone else on the south side of the building.

According to his statement, Cdr. Guerrero attempted to pry open a door in the hallway to see if the Halligan tool would work. He determined it would take too long and dangerously expose an officer to gunfire coming from inside the classroom. He observed that the classroom doorway had multiple holes consistent with bullet holes, and he did not want to expose or jeopardize the safety and lives of any officers by trying to pry the door open.¹⁹⁷

Cdr. Guerrero then obtained a master key from an officer at the scene. As he made his way to the classroom door, an officer advised him to try it on another door first. He attempted to open another door along the hallway, and it did not work. He saw a few Border Patrol agents and advised them to start setting up for a triage situation of mass casualties. He then received a second master key, which he successfully used to open another door.¹⁹⁸

Working with the BORTAC team, Cdr. Guerrero had another agent use the rifle-rated ballistic shield to give him cover as he opened the classroom door. Cdr. Guerrero placed the key in the door to Room 111 and opened the door. (Cdr. Guerrero's contemporaneous report stated that he unlocked the door, ¹⁹⁹ but as explained above, there is reason to question whether the door was actually locked.)

¹⁹⁵ Statement of Agent Paul Guerrero (undated, taken by Ranger Ricardo Guajardo).

¹⁹⁶ See Special Agent Williams's body-worn camera footage.

¹⁹⁷ *Id*.

¹⁹⁸ *Id*.

¹⁹⁹ In his statement, Commander Guerrero said "I placed the key into the keyhole. The key worked and I was able to unlock and open the door." *Id.*; *see also* Statement of Agent Warren John Becker (undated, taken by Ranger Tyler Williamson) ("The door was locked, and I utilized the shield to provide cover for Acting BORTAC Commander Guerrero as he opened the door with the master key.").

The attacker was standing in front of a closet in the corner of Room 111, and he fired his rifle at the stack of officers coming through the classroom door. The officers fired on the attacker, killing him.²⁰⁰

The Committee has been advised that none of the Border Patrol agents involved in opening the door were wearing activated body cameras.

```
On the Outside ...
```

As mentioned in the narratives above, there were important events happening outside the north and south ends of the west building. In part due to the difficulty of maintaining radio communications within the building, not everybody inside the building received all of this information.

A police radio communication of unknown origin stated at 11:56 a.m.: "[I]t is critical for everybody to let PD take point on this." None of the witnesses interviewed by the Committee indicated any knowledge of this communication or what it meant by "PD" taking "point on this." The general consensus of witnesses interviewed by the Committee was that officers on the scene either assumed that Chief Arredondo was in charge, or that they could not tell that anybody was in charge of a scene described by several witnesses as "chaos" or a "cluster."

There was a series of phone calls with a student inside Room 112, initiated by the student calling 911 at 12:03 p.m.. Radio traffic communicated to those officers who could hear it the fact that a student had called from within the classroom. Several witnesses indicated that they were aware of this, but not Chief Arredondo. The Committee has received no evidence that any officer who did learn about phone calls coming from inside Rooms 111 and 112 acted on it to advocate shifting to an active shooter-style response or otherwise acting more urgently to breach the classrooms.

What Didn't Happen in Those 73 Minutes?

A major error in the law enforcement response at Robb Elementary School was the failure of any officers to assume and exercise effective incident command. Uvalde Police officers responding to a vehicle wreck and shots fired appear to have arrived first on the scene, which would make one of them the initial incident commander. Uvalde CISD Police Chief Arredondo quickly arrived as the incident moved to school property and the law enforcement

²⁰⁰ Statement of Agent Paul Guerrero (undated, taken by Ranger Ricardo Guajardo).

²⁰¹ Source: DPS timeline.

response evolved. This made him a natural person to assume command over an incident as it developed. But Chief Arredondo does not consider himself to have assumed incident command. He explained to the Committee:

[W]hile you're in there, you don't title yourself ... I know our policy states you're the incident commander. My approach and thought was responding as a police officer. And so I didn't title myself. But once I got in there and we took that fire, back then, I realized, we need some things. We've got to get in that door. We need an extraction tool. We need those keys. As far as ... I'm talking about the command part ... the people that went in, there was a big group of them outside that door. I have no idea who they were and how they walked in or anything. I kind of – I wasn't given that direction.

you can always hope and pray that there's an incident command post outside. I just didn't have access to that. I didn't know anything about that. 202

Other people could have assumed command, including the next people in Uvalde CISD's preassigned line of command for active shooter response or others on the scene with more experience or training. ALERRT training teaches that any law enforcement officer can assume command, that somebody must assume command, and that an incident commander can transfer responsibility as an incident develops. That did not happen at Robb Elementary, and the lack of effective incident command is a major factor that caused other vital measures to be left undone. Also, the misinformation reported to officers on the outside likely prevented some of them from taking a more assertive role. For example, many officers were told to stay out of the building because Chief Arredondo was inside a room with the attacker actively negotiating.

Responders did not remain focused on the task of "stopping the killing" as instructed by active shooter training.²⁰³ They never attempted to breach the classroom before BORTAC accomplished entry. Chief Arredondo explained:

I knew those doorsThose doors opened outward. ... They're thick, heavy doors with a metal frame. Most people are used -- as police officers, used to going to a residence and you kick in doors. That's just such a common thing in our business. You didn't have that option here. I knew a ramrod, which I call a buddy, which is ... a heavy pipe with two handles, that wasn't going to work ... and that's why I called for that extraction tool and keys. ²⁰⁴

²⁰² Committee testimony of Chief Pete Arredondo, Uvalde CISD Police (June 21, 2022).

²⁰³ E.g., id.

²⁰⁴ *Id*.

But nobody ever checked the doors of Rooms 111 or 112 to confirm they were actually locked or secured.²⁰⁵ Room 111 probably was not. Chief Arredondo's search for a key consumed his attention and wasted precious time, delaying the breach of the classrooms.²⁰⁶

Nobody called Principal Gutierrez to ask about the location of a master key.²⁰⁷ She had a key, and the head custodian had a key. Yet despite all the effort to find a key, nobody called her.

Although discussed on both the south and north sides of the building, nobody ever created a diversion on the east side of the building, where Rooms 111 and 112 had windows.²⁰⁸

And although it should not have proved necessary had responders remained focused on "stopping the killing" as soon as possible, as the incident dragged on, nobody tasked any law enforcement responder to establish reliable communications between the south and north sides of the building and with resources outside the building. Radio communication was ineffective, so something else was needed for decisionmakers to receive critical information, such as the fact that victims had called from inside the rooms with the attacker.²⁰⁹ To the extent there was confusion among officers about whether the scenario was an "active shooter" or "barricaded subject," information that there were wounded victims in the rooms would have clarified the existence of an active shooter scenario.

Law Enforcement Responder Headcount

In total, 376 law enforcement officers responded to the tragedy at Robb Elementary School.

²⁰⁵ E.g., Testimony of Chief Pete Arredondo, Uvalde CISD Police (June 21, 2022).

²⁰⁶ ALERRT has noted the failure to check the lock in its criticisms. See ALERRT, Robb Elementary School Attack Response Assessment and Recommendations at 18-19 (July 6, 2022). A representative of ALERRT testified before the Committee that the "first rule of breaching" is to check the lock. See Testimony of John Curnutt, ALERRT (July 11, 2022). Unfortunately, ALERRT apparently has neglected to include that "first rule of breaching" in its active-shooter training materials, which includes modules entitled "Closed and Locked Interior Doors" and "Entering Locked Buildings Quickly, Discreetly, and Safely." See Federal Bureau of Investigation & ALERRT, Active Shooter Response – Level 1, at STU 3-8 – 3-10, 4-20 – 4-25.

²⁰⁷ E.g., Testimony of Chief Pete Arredondo, Uvalde CISD Police (June 21, 2022) (no recollection of communicating with Principal Gutierrez).

²⁰⁸ E.g., Testimony of Chief Pete Arredondo, Uvalde CISD Police (June 21, 2022).

²⁰⁹ See Testimony of Chief Pete Arredondo, Uvalde CISD Police (June 21, 2022) (did not recall tasking anyone, commented "it would be fantastic" to have the most up-to-date information and that his "priority was to get into that classroom," and "I didn't have communication with … what was going on outside. My big thing was getting through that door.").

The breakdown of responders, by agency, is as follows:²¹⁰

| 149 | United States Border Patrol |
|-----|---|
| 91 | Texas Department of Public Safety |
| 25 | Uvalde Police Department |
| 16 | San Antonio Police Department (SWAT) |
| 16 | Uvalde County Sheriff's Office |
| 14 | Department of Homeland Security - HIS |
| 13 | United States Marshals |
| 8 | Drug Enforcement Agency |
| 7 | Frio County Sheriff's Office |
| 5 | Kinney County Sheriff's Office |
| 5 | Uvalde Consolidated Independent School District |
| 4 | Dilley Police Department |
| 4 | Zavala County Sheriff's Office |
| 3 | Medina County Sheriff's Office |
| 3 | Sabinal Police Department |
| 2 | City of Uvalde Fire Marshals |
| 2 | Pearsall Police Department |
| 2 | Texas Parks and Wildlife |
| 2 | Uvalde County Constables |
| 2 | Val Verde County Sheriff's Office |
| 1 | Frio County Constables |
| 1 | Southwest Texas Junior College |
| 1 | Zavala County Constables |

²¹⁰ Source: Texas Department of Public Safety.

6 | Information Flow

This Committee's chief goal from the very beginning has been to provide accurate information from dependable sources. The public's need for accurate information only has intensified as we have investigated the facts surrounding the tragedy. Problems with the flow of information have plagued government, media, and public discussion about what happened at Robb Elementary from the outset—damaging public trust, inflicting a very real toll on the people of Uvalde, and creating an imperative to provide a reliable set of facts.

The First Reports

Shortly after the shooting, authorities first reported to the public that the shooter killed fourteen students and one teacher, and the attacker was reported dead at that time.²¹¹

The next day, state leaders looked to law enforcement for more information in preparation for a broader press conference. The briefing was planned to be led by a Uvalde police lieutenant who had been at the scene, but that officer literally passed out while waiting in the hallway beforehand. In his place, the DPS Regional Director for South Texas, Victor Escalon, agreed to conduct the briefing. Director Escalon, who is not based in Uvalde, had arrived on the scene shortly before the attacker was killed. He did not personally witness the bulk of the day's events, leaving him to depend on secondhand knowledge acquired from other law enforcement officers who had been part of the response. ²¹³

That briefing was the basis for the press conference the day after the shooting, in which Governor Abbott and other leaders relied on the information law enforcement gave them. After correcting the death toll to nineteen students and two teachers, they made statements based upon Director Escalon's briefing (which itself was based entirely on secondhand knowledge). These statements repeated a false narrative that the entire incident lasted as little as forty minutes thanks to officers who rapidly devised a plan, stacked up, and neutralized the attacker. The general sentiments shared that day were that law enforcement responders were courageous in keeping the attacker pinned down while children were evacuated.

²¹¹ All press conferences referenced in this report were recorded.

²¹² Committee testimony of DPS Director Col. Steven C. McCraw (July 11, 2022).

²¹³ Uvalde CISD Police Chief Pete Arredondo said he approached Regional Director Escalon after the briefing because he was surprised and frustrated after hearing his comments that a school district officer had engaged the attacker. "Y'all haven't even gotten our statements yet," he told Escalon. "We were all the first ones there." Chief Arredondo testified: "he corrected that. But during the press conference, it still came out that way." Committee testimony of Chief Pete Arredondo, Uvalde CISD Police, at 180-81 (June 21, 2022).

Another press conference was held the next day outside of Robb Elementary School, and new details emerged. One was: "The back door was propped open. It wasn't supposed to be ... a teacher ... propped it open [and] that was an access point that the subject used." The idea that the door was propped open led to public outcry, and even a teacher who was not implicated was devastated as she wondered whether she had accidentally left a door open. ²¹⁴ The truth—confirmed by video—is that while a teacher had propped open the west exterior door, she actually saw the attacker approaching and slammed that door shut as she called 911 for help. The door was closed; it simply was either already unlocked or the lock failed to engage, which she could not have known because the doors lock from the outside. ²¹⁵ On May 31, it was confirmed that her account was correct. ²¹⁶

The media repeated the communication failures of relevant authorities, supplemented by leaks released uncritically. The Committee certainly does not question the role or value of reporting by the press, but it is unfortunate that caution and context have been so uncommon. Various people commenting publicly perpetually have taken information at face value, presenting it as definitive when provided as tentative, and they rarely have characterized it as one small part of a vastly larger body of evidence. (To their credit, some outlets did produce original investigative pieces questioning many of the inconsistencies documented earlier.)

The Committee recognizes the natural tension between providing the public with immediate information and the need for accuracy. A complete and thorough investigation can take months or even years to confirm every detail, especially when this many law enforcement officers are involved. However, one would expect law enforcement during a briefing would be very careful to state what facts are verifiable, and which ones are not.

While this is by no means an exhaustive list, the Committee draws attention to two instances to make its broader points.

ALERRT Report

The first instance is based upon the report, and subsequent media coverage, of the report released by the Advanced Law Enforcement Rapid Response Training (ALERRT) Center. The report was "based on an incident briefing held for select ALERRT staff . . . for approximately

²¹⁴ One teacher emotionally testified to the Committee that she had spent several distraught days thinking it was her fault the attacker had entered the building, and she had gone as far as apologizing to people.

²¹⁵ Like virtually all schools, Robb Elementary made use of "Columbine" doors that can only be locked from the outside; from the inside, exterior doors are opened with a push bar.

²¹⁶ Travis Considine, chief communications officer for DPS, confirmed this for the Associated Press as one of their reporters explored the story.

1 hour" along with some unspecified "additional information" staff later received from DPS. ²¹⁷ ALERRT conducted no investigation of its own and spoke to no witnesses, relying instead on a snapshot of an evolving investigation. One of its conclusions was a bombshell: a "UPD officer was armed with a rifle and sighted in to shoot the attacker; however, he asked his supervisor for permission to shoot." He failed to get a response, and the attacker quickly slipped into the school.

During testimony before the Committee, an ALERRT representative admitted he had learned that DPS had received an additional statement from the officer, stating he no longer believed he had seen the attacker when he sought permission to shoot. In fact, and as the Committee has concluded, that officer saw a coach ushering kids inside—something the Texas Rangers, under the purview of DPS, had discussed with the officer during a later interview. Uvalde Mayor McLaughlin issued a statement explaining as much, and ALERRT quickly caveated its findings, saying it did not know "the officer gave a third statement to investigators that was different from the first two statements."

Video Evidence

The Committee fought hard to make sure the public could see the hallway video (although, as previously stated, the Committee would not have shown the images of the attacker and would have let the families of the victims see it first). Our justification was that we could tell people all day long what we saw, but everyone needed to see it for themselves.

After the leak of part of a composite video prepared by the FBI, images began circulating condemning some shown on it. "Cellphone cop" was said to be standing around checking his phone, indifferent. What those sharing it did not know was that it was an image of Eva Mireles's husband. She had been in contact with him already, and when he moved off camera later, she told him she was dying. After receiving this call, he was naturally devastated and was not permitted to return by other law enforcement officers. While this report has cited numerous failures by law enforcement, the actions of this man were not among them.

The problem, of course, is the power, speed, and unaccountable nature of social media. While it allows the truth to spread, it has done far more to amplify incorrect or incomplete information. This is an example of how a picture without context can lead to an incomplete or false impression that is repeated even by respected news organizations. Mark Twain said it best: "A lie can travel halfway around the world before the truth puts on its shoes."

²¹⁷ See ALERRT, Robb Elementary School Attack Response Assessment and Recommendations at 3 (July 6, 2022).

²¹⁸ Id. at 15.

Compromised Trust

This report has addressed many of the discrepancies and loose threads related to the Robb Elementary shooting, and the Committee focused on research and documentation to support its findings, in part because we expected to be met with rightful skepticism after everything that has happened. The results of the information issues surrounding the shooting are wide ranging and will be felt for a long time to come.

An uncertain narrative also opens the door much wider for conspiracy theories, many of which have been harmful. The fear of a coverup is palpable here, and while most see it as simply part of an intragovernmental "blame game," others have made wild accusations that authorities are sweeping some major scandal under the rug.²¹⁹ Comments on social media have repeated and shared specific false allegations about the attacker's identity and associations. And predictably, some have promoted the disgusting Sandy Hook-style claim that Robb Elementary was home to a hoax or "false flag" operation.²²⁰ While this and similar claims might seem obviously beneath our dignifying with a response, it does become harder to proclaim the truth when it is so opaque.

Most fundamentally, there has been a loss of trust in government. As peace officers' union CLEAT said in a recent release, the "great deal of false and misleading information" means that sources "Texans once saw as iron-clad and completely reliable have now been proven false." The Committee certainly has felt the distrust and doubt about its work from those who have cynically but justifiably worried about the way we conducted our investigation.

We tried at every turn to elevate and respect the needs of Uvalde, because nowhere has unreliable information more impacted a community. We saw wounds continuously ripped open and agonizing disillusionment grow there among the people who most deserve swift, sure answers about the tragedy that shook their community. Uvalde itself has paid a terrible price as it has waited for the truth and waded through the shaky narrative given instead.

²¹⁹ In fact, #uvaldecoverup is a popular hashtag for tweets related to the Robb Elementary School shooting, and those are the kinds of claims regularly associated with it.

Some coverage can be found at the *Houston Chronicle* (https://www.houstonchronicle.com/politics/texas/politifact/article/fact-check-uvalde-false-flag-17214816.php), among other outlets.

²²¹ CLEAT's release is at https://www.cleat.org/cleat-response-to-uvalde-mass-shooting/.

7 | FACTUAL CONCLUSIONS

Based on the foregoing information developed through its investigation, the Committee has drawn the following preliminary conclusions:

1. Uvalde CISD and Robb Elementary

- a. Communications and lockdown alerts:
 - i. Poor wi-fi connectivity in Robb Elementary likely delayed the lockdown alert through the Raptor application.
 - ii. Once the alert was sent, not all teachers received it immediately for a variety of reasons including wi-fi coverage, whether the teacher used the Raptor phone application (as opposed to logging in through a web browser), and whether the teacher was carrying a phone at the time.
 - iii. No one used the school intercom as another means to communicate the lockdown.
 - iv. As a result, not all teachers received timely notice of the lockdown, including the teacher in Room 111.

b. Effect of bailouts:

- i. The frequency of less-serious bailout-related alerts in Uvalde diluted the significance of alerts and dampened everyone's readiness to act on alerts.
- ii. In response to the May 24, 2022, lockdown alert at Robb Elementary, the initial reaction of many administrators, teachers, and law enforcement responders was that it likely was a less-dangerous bailout.

c. Doors and locks:

- i. Robb Elementary had recurring problems with maintaining its doors and locks.
- ii. In particular, the locking mechanism to Room 111 was widely known to be faulty, yet it was not repaired.
 - 1. The Robb Elementary principal, her assistant responsible for entering maintenance work orders, the teacher in Room 111, other teachers in the fourth grade building, and even many fourth grade students widely knew of the problem with the lock to Room 111.

- 2. Nevertheless, no one placed a work order to repair the lock—not the principal, her secretary, the teacher to Room 111, or anyone else.
- iii. Robb Elementary had a culture of noncompliance with safety policies requiring doors to be kept locked, which turned out to be fatal.

1. Exterior doors.

- a. Teachers at Robb Elementary often used rocks to prop open exterior doors.
- b. The west door to the west building was supposed to be continuously locked. When the attacker approached on May 24, 2022, it was unlocked, and he was able to enter the building there.
- c. If the door had been locked as policy required, the attacker likely would have been slowed for some period of time as he either circumvented the lock or moved to another point of entry into the building.

2. Interior classroom doors.

- a. Teachers at Robb Elementary commonly left interior doors unlocked for convenience, and they also used magnets and other methods to circumvent door locks.
- b. The doors to Rooms 111 and 112 were required to be locked at all times, and in a lockdown, the teachers were supposed to check that they were locked.
 - i. A teacher in Room 112 was seen locking her classroom door after the lockdown alert.
 - ii. The door to Room 111 probably was not locked. The teacher in Room 111 does not recall hearing the lockdown alert. The door required special effort to lock it, and the teacher has no memory of having done so. The attacker apparently did not have to take any actions to overcome a locked door before entering the classrooms.
- c. If the door to Room 111 had been locked, the attacker likely would have been slowed for some time as he either circumvented the lock or took some other alternative course of action.

2. Information that was known or knowable about the attacker

a. Home and family:

- i. The attacker had an unstable home life with no father figure and a mother struggling with *a* substance abuse disorder.
- ii. The attacker's family moved often and lived in relative poverty.
- iii. The attacker developed sociopathic and violent tendencies, but he received no mental health assistance
- iv. Various members of the attacker's family were aware during the time leading up to the attacker's 18th birthday that he was estranged from his mother and that he had asked for help in buying guns through straw purchases that would have been illegal. Family members uniformly refused to buy guns for him.
- v. During the week between his 18th birthday and the events of May 24, 2022, the attacker expressed suicidal ideation to a cousin, who talked to him and did not believe he was an imminent suicide risk.
- vi. During the week between his 18th birthday and the events of May 24, 2022, the attacker's grandparents and other family members became aware that the attacker had bought guns. The grandparents demanded that the guns be removed from their home.

b. School:

- i. The attacker struggled academically throughout his time in school.
- ii. The school made no meaningful intervention with the attacker before he was involuntarily withdrawn for poor academic performance and excessive absences.
- iii. The attacker had few disciplinary issues at school, but he was suspended once for a fight.
- iv. Due to his excessive absences, there apparently was no information actually known to the school district that should have identified this attacker as a threat to any school campus.
- c. Law enforcement: There apparently was no information actually known to local Uvalde law enforcement that should have identified this attacker as a threat to any school campus before May 24, 2022.
- d. Friends and acquaintances: Some of attacker's social media contacts received messages from the attacker related to guns, suggesting that he was going to do

something they would hear about in the news, and even referring to attacking a school.

e. Social media:

- i. Reports suggest that some social-media users may have reported the attacker's threatening behavior to the relevant social media platforms. The social media platforms appear to have not done anything in response to restrict the attacker's social media access or report his behavior to law enforcement authorities.
- ii. The services used by Uvalde CISD to monitor social media for threats did not provide any alert of threatening behavior by the attacker.
- f. Firearms and ammunition sellers: There was no legal impediment to the attacker buying two AR-15-style rifles, 60 magazines, and over 2,000 rounds of ammunition when he turned 18. The ATF was not required to notify the local sheriff of the multiple purchases.

3. Law enforcement response on May 24, 2022

- a. There was no law enforcement officer on the Robb Elementary campus when the attacker came over the fence and toward the school.
- b. Citizens at the scene quickly alerted local law enforcement about a vehicle accident, a man with a gun, and shots fired near the Robb Elementary campus.
- c. As initially reported by Uvalde Police dispatch and as understood by most initial responders, the incident began off-campus and as one that would have been in the jurisdiction of the Uvalde Police Department. Uvalde Police officers were among the first, if not the first, law enforcement responders on the scene as a man firing a gun moved toward Robb Elementary School.
- d. As the situation developed and responders received more information, it became apparent that the threat moved on to the school campus and within the jurisdiction of the Uvalde CISD Police Department.
- e. Multiple law enforcement officers arrived at Robb Elementary within a few minutes of the attacker coming over the fence.
- f. A Uvalde Police Department officer saw a person dressed in black and thought it might have been the attacker. From a distance of over 100 yards, that officer requested permission to shoot. Subsequent analysis suggests that the person in black was a school coach, and the officer did not have an opportunity to stop the attacker by shooting him before he entered the west building.
- g. Robb Elementary School Coach Yvette Silva acted heroically and almost certainly saved lives by alerting the school to the attacker's advance. Most fourth grade classes successfully locked down as a result of her quick response.

- h. After entering through the unlocked west door, the attacker had about three minutes in the west building before first responders arrived at the building, including approximately two and a half minutes during which the attacker is estimated to have fired over 100 rounds.
- i. The initial responders to the west building heard gunfire and encountered a hallway with a fog of drywall debris, bullet holes, and empty rifle casings. They converged on Rooms 111 and 112, which they identified as the location of the attacker. They acted appropriately by attempting to breach the classrooms and stop the attacker. The attacker immediately repelled them with a burst of rifle fire from inside the classrooms.
- j. The responders immediately began to assess options to breach the classroom, but they lost critical momentum by treating the scenario as a "barricaded subject" instead of with the greater urgency attached to an "active shooter" scenario.
- k. It actually was an "active shooter" scenario because the attacker was preventing critically injured victims from getting medical attention.
 - i. An active shooter scenario differs from a barricaded-subject scenario in that law enforcement officers responding to an active shooter are trained to prioritize the safety of innocent victims over the safety of law enforcement responders.
 - ii. At first, the first responders did not have "reliable evidence" about whether there were injured victims inside Rooms 111 and 112, although circumstantial evidence strongly suggested that possibility, including the fact that the attacker had fired many rounds inside classrooms at a time when students were in attendance.
 - iii. The ALERRT training "reliable evidence" standard does not align with the "reasonable officer" standard applied by ALERRT in its preliminary and partial report.
- l. Uvalde CISD's active shooter policy called for Uvalde CISD Police Chief Arredondo to be the incident commander in any active shooter response.
 - i. Chief Arredondo was one of the first responders to arrive at the west building.
 - ii. In the initial response to the incident, Chief Arredondo was actively engaged in the effort to "stop the killing" up to the point when the attacker was located in Rooms 111 and 112, and the attacker fired on responding officers.
 - iii. By this time, there were dozens of officers on the scene, but Chief Arredondo did not assume his preassigned responsibility of incident command, which would have entailed informing other officers that he

- was in command and also leaving the building to exercise command, beginning with establishing an incident command post.
- iv. Instead, he remained in the hallway where he lacked reliable communication with other elements of law enforcement, and he was unable to effectively implement staging or command and control of the situation.
- m. Over the course of the next hour, hundreds of law enforcement officers arrived at the scene.
 - i. The scene was chaotic, without any person obviously in charge or directing the law enforcement response.
 - ii. To the extent any officers considered Chief Arredondo to be the overall incident commander, they also should have recognized that was inconsistent with him remaining inside the building.
 - iii. There was an overall lackadaisical approach by law enforcement at the scene. For many, that was because they were given and relied upon inaccurate information. For others, they had enough information to know better.
- n. Despite obvious deficiencies in command and control at the scene which should have been recognized by other law enforcement responders, none approached Chief Arredondo or any of the officers around him or subordinate to him to affirmatively offer assistance with incident command.
- o. Chief Arredondo and the officers around him at the south end of the building were focused on gaining access to the classrooms (through use of a breaching tool, a key, or other means) and protective equipment for officers (through rifle-rated ballistic shields, flashbangs, etc.).
- p. Meanwhile, dozens of law enforcement officers were assembling in the hallway on the north side of the building, stacking up for an assault on the classrooms, and mostly waiting for further instructions pending the arrival of protective gear and breaching equipment.
- q. While 911 received communications from victims inside Rooms 111 and 112, Chief Arredondo did not learn about it because of his failure to establish a reliable method of receiving critical information from outside the building.
- r. Eventually, Chief Arredondo came to understand there probably were casualties inside Rooms 111 and 112. Even if he had received information of surviving injured victims in the classrooms, it is unclear that he would have done anything differently to act "more urgently."
- s. U.S. Marshals provided a rifle-rated shield and it arrived around 12:20 p.m., approximately 30 minutes before the classroom was finally breached.

- t. While officers acted on the assumption that the doors to Rooms 111 and 112 were locked, as they were designed to be, nobody tested that assumption.
- u. Room 111's door probably was not effectively locked shut.
- v. Chief Arredondo did not actually exercise tactical incident command over the BORTAC team, nor did the BORTAC team seek instruction from Chief Arredondo.
- w. By the time the BORTAC team breached the classrooms, the tactical command inside the building had been de facto assumed by BORTAC.
- x. Acting on effectively the same information available to Chief Arredondo, including an assumption of injured victims in the room, the BORTAC commander on scene waited until arranging a rifle-rated shield and obtaining a working master key before attempting to breach the classrooms.
- y. The Committee has not received medical evidence that would inform a judgment about whether breaching the classroom sooner than the approximately 73 minutes that passed between the first responders' initial arrival at the west building and their eventual breach of the classrooms could have been saved lives or mitigated injuries.
 - i. As described above, it is likely that most of the deceased victims perished immediately during the attacker's initial barrage of gunfire.
 - ii. However, given the information known about victims who survived through the time of the breach and who later died on the way to the hospital, it is plausible that some victims could have survived if they had not had to wait 73 additional minutes for rescue.

IN MEMORY OF

Nevaeh Bravo

Jacklyn Cazares

Makenna Elrod

Jose Flores, Jr.

Eliahna Garcia

Irma Garcia

Uziyah Garcia

Amerie Jo Garza

Xavier Lopez

Jayce Luevanos

Tess Mata

Maranda Mathis

Eva Mireles

Alithia Ramirez

Annabell Rodriguez

Maite Rodriguez

Alexandria Rubio

Layla Salazar

Jailah Silguero

Eliahna Torres

Rojelio Torres

Case: 1:21-cv-04595 Document #: 98-1 Filed: 04/24/23 Page 150 of 304 PageID #:1677

EXHIBIT 5



RAND > Research > Gun Policy in America > Research Review > Essays >

Mass Shootings in the United States

By Rosanna Smart, Terry L. Schell Updated April 15, 2021

Summary: There is no standard definition of what constitutes a mass shooting, and different data sources—such as media outlets, academic researchers, and law enforcement agencies—frequently use different definitions when discussing and analyzing mass shootings. For instance, when various organizations measure and report on mass shootings, the criteria they use in counting such events might differ by the minimum threshold for the number of victims, whether the victim count includes those who were not fatally injured, where the shooting occurred, whether the shooting occurred in connection to another crime, and the relationship between the shooter and the victims. These inconsistencies lead to different assessments of how frequently mass shootings occur and whether they are more common now than they were a decade or two ago.

Data show that, regardless of how one defines mass shootings, perpetrators are likely to be men. But several other characteristics that are statistically predictive of perpetration are still uncommon among offenders on an absolute level. The rare nature of mass shootings creates challenges for accurately identifying salient predictors of risk and limits statistical power for detecting which policies may be effective in reducing mass shooting incidence or lethality. Implementing broader violence prevention strategies rather than focusing specifically on the most-extreme forms of such violence may be effective at reducing the occurrence and lethality of mass shootings.

ncidents of mass firearm violence galvanize public attention. There has been extensive media coverage of many incidents in the United States in which individuals have used firearms to kill large numbers of people. These mass public shootings are rare events—they constitute less than 15 percent of all mass killings in the United States and are

Case: 1:21-cv-04595 Document #: 98-1 Filed: 04/24/23 Page 153 of 304 PageID #:1680

responsible for less than 0.5 percent of all homicides (Duwe, 2020)—but they have far-reaching impacts on citizens' mental health, anxiety, and perceptions of safety (Lowe and Galea, 2017). [1] Mass shootings also frequently generate extensive media coverage related to guns, prompt political discussions about legislative initiatives for how better to prevent gun violence, and may lead to substantial state gun policy changes (Schildkraut, Elsass, and Meredith, 2018; Newman and Hartman, 2019; Luca, Malhotra, and Poliquin, 2020).

In this essay, we first describe different approaches for defining a mass shooting and discuss how using different definitions can influence estimates of mass shooting levels and trends. We then summarize findings from the literature regarding the characteristics of mass shootings, including offender characteristics, types of firearm(s) used, and community-level correlates. We conclude with a brief discussion of the substantial methodological challenges for evaluating how gun policies affect mass shootings. Our discussion here is focused on mass shootings in the U.S. context.

What Is a Mass Shooting?

The U.S. government has never defined mass shooting as a separate category of crime, and there is not yet a broadly accepted definition of the term. In the 1980s, the Federal Bureau of Investigation (FBI) defined mass murderer as someone who "kills four or more people in a single incident (not including himself), typically in a single location" (Krouse and Richardson, 2015). In 2013, Congress defined mass killing as a single incident that leaves three or more people dead (Pub. L. 112-265, 2013). However, both definitions include many incidents that would not be considered mass shootings. Furthermore, neither definition was established for the purpose of data collection or statistical analyses. The FBI classification of mass murderer was established primarily with the aim of clarifying criminal profiling procedures (Ressler, Burgess, and Douglas, 1988), and the congressional definition was intended to clarify statutory authority for the provision of U.S. Department of Justice investigatory assistance requested by state and local agencies (Pub. L. 112-265, 2013). Thus, various news outlets, researchers, and law enforcement agencies often use different definitions when reporting on mass shootings, which can complicate our understanding of mass shooting trends and their relationship to gun policy.^[2] Table 1 provides examples of the variation in the criteria set by some of the existing data sources on mass shootings in the United States. Depending on which data source is referenced, there were somewhere between six and 503 mass shootings and between 60 and 628 mass shooting fatalities in 2019.

Table 1. Variation in How Mass Shootings Are Defined and Counted

Case: 1:21-cv-04595 Document #: 98-1 Filed: 04/24/23 Page 154 of 304 PageID #:1681

| Data Source | Casualty Threshold (for injuries or deaths by firearm) | Location of Incident | Motivation of Shooter | Number of U.S. Mass Shootings in 2019 | Number of Mass Shooting Fatalities in 2019 |
|--|--|----------------------------|--|--|--|
| Mother Jones (see Follman, Aronsen, and Pan, 2020) | Three people fatally injured (excluding shooter) ^a | Public | Indiscriminate (excludes crimes of armed robbery, gang violence, or domestic violence) | 10 | 73 |
| Gun Violence Archive (undated-a) | Four people fatally or nonfatally injured (excluding shooter) | Any | Any | 418 | 465 |
| Mass Shooter Database (The Violence Project, undated) | Four people fatally injured (excluding shooter) | Public | Indiscriminate (excludes crimes of armed robbery, gang violence, or domestic violence) | 6 | 60 |
| AP/USA TODAY/Northeastern University Mass Killings database (see Associated Press and USA Today, 2019; Callahan, 2019) | Four people fatally injured (excluding shooter) | Any | Any | 33 | 174 |
| Everytown for Gun Safety Support Fund (2019) | Four people fatally injured (excluding shooter) | Any | Any | 19 (in 2018) ^b | 112 (in 2018) ^b |
| Mass Shooting Tracker (undated) | Four people fatally or nonfatally injured (including shooter) | Any | Any | 503 | 628 |

Case: 1:21-cv-04595 Document #: 98-1 Filed: 04/24/23 Page 155 of 304 PageID #:1682

| Data Source | Casualty Threshold (for injuries or deaths by firearm) | Location of Incident | Motivation of Shooter | Number of U.S. Mass Shootings in 2019 | Number of Mass Shooting Fatalities in 2019 |
|----------------------------------|--|----------------------------|--------------------------|--|--|
| Mass Shootings in America | Three | Any | Not | 62 | 202 |
| database | people | | identifiably | (in 2015) ^c | (in 2015) ^c |
| (see Stanford Geospatial Center, | fatally or | | related to | | |
| undated) | nonfatally | | gangs, drugs, | | |
| | injured | | or organized | | |
| | (excluding shooter) | | crime | | |

^a Before January 2013, the casualty threshold for the *Mother Jones* data was four people fatally injured (excluding the shooter).

Although there is no official standard for the casualty threshold that distinguishes a mass shooting from other violent crimes involving a firearm, a common approach in the literature is to set a casualty threshold of four fatalities by firearm, excluding the offender or offenders (Fox and Levin, 1998; Duwe, Kovandzic, and Moody, 2002; Gius, 2015c; Krouse and Richardson, 2015; Fox and Fridel, 2016). Using this criterion helps reduce measurement error in identifying mass shootings because fatalities are captured in administrative data and are frequently included in media reports (Duwe, 2000). However, this categorization is not without controversy. It does not capture incidents in which fewer than four victims were killed but additional victims were nonfatally injured, and it does not include multiple-victim homicides in which fewer than four fatalities resulted from gunshots but additional fatalities occurred by other means. Thus, many have chosen alternative definitions of casualty thresholds for mass shootings. For instance, Lott and Landes (2000) adopted the definition of two or more injured victims, Kleck (2016) used a six-victim casualty threshold, the Gun Violence Archive (undated-a) defined mass shooting as an incident in which four or more victims (excluding the shooter) are injured or killed, and the Mass Shooting Tracker (undated) set a criterion of four or more people injured or killed (including the shooter).

Another definitional disagreement is whether to include multiple-victim shooting incidents that occur in connection with some other crime or domestic dispute. Because mass shootings

page is part of RAND's Gun y in America initiative, one of rgest studies ever conducted e subject. » that stem from domestic and gang violence are contextually distinct from high-fatality indiscriminate killings in public venues, some analysts have argued that they should be treated separately. In their analyses of "mass public shootings," Lott and Landes (2000) excluded any felony-related shooting, and Duwe, Kovandzic, and Moody (2002) excluded incidents where "both the victims and

^b As of this writing, the Everytown for Gun Safety Support Fund's Mass Shootings in America website with interactive map was up to date as of April 28, 2020. However, the group's downloadable data included incidents through 2018 only.

^c Stanford's Mass Shootings in America database was permanently suspended in mid-2016. In this table, we provide incident and fatality counts for 2015, the last year of complete data collection. For archived data, see Stanford Geospatial Center, 2018.

Case: 1:21-cv-04595 Document #: 98-1 Filed: 04/24/23 Page 156 of 304 PageID #:1683

offender(s) were involved in unlawful activities, such as organized crime, gang activity, and drug deals" (p. 276). Similarly, other researchers (e.g., Gius, 2015c; Luca, Malhotra, and Poliquin, 2020) have restricted analyses to events that occurred in a relatively public area and in which victims appeared to have been selected randomly. However, others have claimed that this narrow definition ignores a substantial proportion of gun-related violence from family- or felony-related murder (Fox and Levin, 2015). Furthermore, determinants of whether victims were selected indiscriminately or whether the incidents were gang- or crime-related are, to some degree, subjective. Accurate information about the shooter's motivations or connection to gangs may not have been included in police or news reports of the incidents. In contrast, the Mass Shooting Tracker and the Gun Violence Archive count as mass shootings all incidents that meet their designated casualty threshold, regardless of the circumstances that led to the event or the motivation of the shooter.

These definitions make a substantial difference in which incidents are counted. [3] As noted earlier, depending on which data source is used, there were between six and 503 mass shootings in the United States in 2019 (see Table 1); that amounts to a range of incident rates from approximately one incident per 50 million people in the United States to one incident per 1 million people. More-restrictive definitions (e.g., from *Mother Jones*) focus on the prevalence of higher-profile events motivated by mass murder, but they omit more-common incidents occurring in connection with domestic violence or criminal activity, which make up about 80 percent of mass shooting incidents with four or more fatally injured victims (Krouse and Richardson, 2015). Broader definitions (e.g., from the Gun Violence Archive) provide a more comprehensive depiction of the prevalence of gun violence, but they obscure the variety of circumstances in which these incidents take place and their associated policy implications. Furthermore, if the effects of a firearm policy are expected to affect only mass public shooting incidents, then analyses that include domestic violence mass shootings could obscure identification of the expected effects of the policy. Thus, there is value in having multiple measurements of mass shootings—but only if their definitions are clearly and precisely explained and they are used by researchers in a manner appropriate to the analysis.

Although researchers, policymakers, and reporters may rightly make different decisions about the criteria they wish to use to define what counts as a mass shooting, these decisions fundamentally shape the scope of incidents considered, as well as the potential for measurement error in their data. Data sets that use definitions based solely on objective criteria that are widely available across multiple sources (e.g., fatality counts) likely offer greater reliability compared with data sets that rely on objective criteria that may not be consistently reported across multiple sources (e.g., nonfatal shooting injury counts) or that may be difficult to operationalize (e.g., public location). Data sets that define mass shootings based on relatively subjective criteria (e.g., whether an incident was related to criminal activity or domestic violence) may be particularly difficult to reconcile because underlying sources may disagree or differently report on these factors. *Mother Jones*, the Mass Shooter Database,

Case: 1:21-cv-04595 Document #: 98-1 Filed: 04/24/23 Page 157 of 304 PageID #:1684

and the Mass Shootings in America database are examples of sources that use some subjective criteria. In the absence of a clear conceptual reason for restricting mass shooting incidents of interest based on subjective criteria, evaluations are likely to produce more-reliable and more-replicable results when using data sources that define mass shootings based only on fatality thresholds (see Table 1).

Another fundamental issue in documenting mass shootings, and in reconciling differences across data sets, is that the methods used to collect information on mass shootings also vary

Mass Attacks Defense Toolkit des practical strategies and ince on deterring, mitigating, esponding to mass attacks. » across sources. There is no comprehensive, administrative data source that captures mass shootings; however, data from the FBI's Supplementary Homicide Reports (SHR) database provide information from 1976 onward on most homicides in the United States, typically including information on the weapon types, number of victims, and number of offenders involved, which can

be used to identify which incidents meet specific definitional thresholds of fatalities (Puzzanchera, Chamberlin, and Kang, 2018).^[5] When such details are known, the SHR database also provides information on victim-offender relationships (e.g., husband or wife, stranger, neighbor)^[6] and incident circumstances (e.g., "gangland killing," "lovers' triangle," "brawl due to influence of alcohol"), which could be used as indicators of familicides and felony-related killings. However, the SHR database relies on voluntary submissions by thousands of separate law enforcement agencies. It does not capture all incidents (about 90 percent completeness), and this missingness is not random. Sometimes, entire states do not submit data for a year or for part of a year, and in most states and years, at least some law enforcement agencies do not submit complete data (Fox, 2004; Fox and Swatt, 2009). In addition to missingness by jurisdiction, there is a high degree of missingness for data elements, particularly in offender characteristics (e.g., the offender may not be known) and incident characteristics (e.g., circumstances or victim-offender relationship). [7] Some analyses have also compared SHR variables with data in police incident reports in specific jurisdictions and found evidence of misclassification regarding victim-offender relationship and incident circumstances (Pizarro and Zeoli, 2013). Others have cross-referenced SHR incidents with historical news records and found issues of coding errors in the SHR database that could affect identification of mass shooting incidents (e.g., double counting of victims or incidents, misclassifying a nonfatal injury as a fatal injury) (Duwe, 2000). Although researchers have noted that these recording errors are relatively uncommon in the SHR, the errors are still important considerations for using the SHR to assess mass shootings (Duwe, 2000; Fox, 2006). Finally, the SHR provides relatively limited detail on offender or victim characteristics, firearm types, and incident setting.

Given these limitations, most data sources for mass shootings do not derive solely from the SHR. Some sources (e.g., the AP/USA TODAY/Northeastern University Mass Killings database) combine information from both news reports and the SHR, others (e.g., *Mother Jones*) rely on

Case: 1:21-cv-04595 Document #: 98-1 Filed: 04/24/23 Page 158 of 304 PageID #:1685

news reports alone, and some (e.g., the Mass Shooter Database) combine information from law enforcement records, social media, court transcripts, news accounts, and other primary and secondary sources to obtain detailed information on the characteristics of each incident and offender (see Table 2). Differences in data collection strategies, in large part, reflect differences in the mass shooting definitions employed (e.g., sources that count nonfatal shooting injuries in their criteria must rely on sources other than the SHR, which captures only fatal injuries), as well as differences in the proposed purpose of the database.

Table 2. Data Collection Methods and Data Elements Captured Across Mass Shooting Data Sources

| Data Source and Year Established | Stated Purpose of the Data Set | Methods for Data Collection | Time Period ^a | Data Elements Captured ^b |
|---|--|---|-----------------------------|--|
| Mother Jones Established 2012 | To track the "distinct phenomenon" of indiscriminate shooting rampages in public places resulting in four or more victims killed (later, three or more victims killed) | Media reports | 1982– present | City, state, latitude, and longitude; date; number of fatalities; number injured; setting; shooter gender, race, and age; prior signs of mental health problems for shooter; method of gun acquisition; gun type |
| Gun Violence Archive Established 2013 | To provide data about gun violence in near real time | Automated queries and manual research of more than 7,500 sources (e.g., local and state police records, media, government reports, existing data aggregates) Each case involves secondary validation and de-duplication. | 2014– present | City, state, latitude, and longitude; date; number of fatalities; number injured; victim name, age, and gender; suspect or offender name, age, and gender; incident resolution; summary of incident; weapons involved (gun type, whether stolen) |
| Mass Shooter Database Established 2017 | To study the life histories of mass shooters who shot and killed four or more people in a public place | Primary sources (e.g., social media, correspondence with perpetrators) and secondary sources (e.g., media, court transcripts, journal | 1966– 2019 | City, state; incident setting; perpetrator age and gender; number killed; 100 life-history variables for offender, including mental health history, trauma, interest |

| _ | | | | |
|---|--|--|-----------------------------|---|
| Data Source and Year Established | Stated Purpose of the Data Set | Methods for Data Collection | Time Period ^a | Data Elements Captured ^b |
| | | articles, autopsy reports, medical, school, and law enforcement records) | | in past shootings, and situational triggers |
| | | Each case involves independent validation and deduplication. | | |
| AP/USA TODAY/ Northeastern University Mass Killings database Established 2006 | To provide a comprehensive repository on every mass murder (four or more people, excluding the killer, killed within a span of 24 hours) | Media reports and the SHR database Further details are not provided. Data are not currently publicly available. | 2006– 2019 | City, state; date; number of victims; method (e.g., shooting); weapon type; incident summary |
| Everytown for Gun Safety Support Fund mass shootings database ^c Established 2013 | To understand mass shootings (four or more killed) and help point lawmakers to strategies to prevent such events | Primarily media reports, supplemented with the SHR database and police and court records | 2009- present | City, state; date; number killed (by sex); number injured (by sex); number under age 20 killed; number of law enforcement officer deaths and injuries; setting; gun types; shooter age, sex, prohibited possessor status, outcome; whether shooter displayed dangerous warning signs and had prior history of domestic violence; whether there was high-capacity magazine use; incident summary |
| Mass Shooting Tracker Established 2013 | To track all mass shootings with more than three people shot in a single spree | Crowd-sourced data collection, unknown procedures | 2013- present | City, state; number killed; number injured; brief incident name and summary (e.g., offender name, victims) |

Case: 1:21-cv-04595 Document #: 98-1 Filed: 04/24/23 Page 160 of 304 PageID #:1687

| Data Source and Year Established | Stated Purpose of the Data Set | Methods for Data Collection | Time Period ^a | Data Elements Captured ^b |
|---|--|---|-----------------------------|--|
| Mass Shootings in America database Established 2012 | To provide a curated set of spatial and temporal data about mass shootings in the United States, taken from online media sources, with the aim of facilitating research on gun violence in the United States | Online media resources In general, a minimum of three corroborating sources are required to add the full record into the data set. | 1966– 2016 | City, state, latitude, and longitude; date, day of week; number of shooters; number of civilian deaths and injuries; number of law enforcement officer deaths and injuries; shooter age, name, sex, and outcome; number (and types) of guns; setting; motive; shooter history of mental illness; shooter military experience; incident summary |

^a In this column, *present* means the beginning of 2021.

However, variation in the sources examined to identify incidents can result in varying degrees of completeness or reliability. Data sets that rely solely on news sources or crowd-sourcing (i.e., Mother Jones, the Mass Shooting Tracker, and the Mass Shootings in America database) may systematically miss lower-profile incidents and those involving fewer injuries or fatalities (Duwe, 2000; Schildkraut, Elsass, and Meredith, 2018). Systemic biases in the types of incidents that receive widespread media coverage affect the number of incidents that are counted but might also misrepresent the relative characteristics of offenders, victims, or communities involved (Silva and Capellan, 2019a, 2019b). For example, news reports may be less likely to include the perpetrator's race when he or she is White (Park, Holody, and Zhang, 2012) and may be more likely to include speculation about gang involvement when racial and ethnic minorities are involved (Entman and Gross, 2008). Given media sources' limited capacity to cover all current events, mass shootings that occur during other newsworthy events (e.g., presidential elections) may also be systematically missed, particularly in historical analysis relying on print or television media. Finally, the media landscape has changed dramatically over the past three decades; daily local newspapers have disappeared across much of the United States, and the extent to which news sources are searchable on the internet has also changed (Duwe, 2000).

Thus, any comparison over time in the number or characteristics of mass shootings necessarily involves comparisons across different media sources with different coverage areas,

^b This column represents the data elements that the source attempts to capture; in many cases, these fields are missing information.

^c For this data set and reporting on it, see Everytown for Gun Safety Support Fund, 2019.

Case: 1:21-cv-04595 Document #: 98-1 Filed: 04/24/23 Page 161 of 304 PageID #:1688

intended audiences, and editorial practices. Data sources that combine information across media reports and law enforcement administrative data—for example, the Gun Violence Archive, the Mass Shooter Database, the Everytown for Gun Safety Support Fund mass shootings database, and the AP/USA TODAY/Northeastern University Mass Killings database —are likely to be more complete, particularly in measuring incidents over a longer historical time frame. However, it is a challenging effort to ensure that different sources of information about the same incident are properly linked (i.e., without a unique incident identifier, researchers must make linkages based on similarities in date, location, and incident information, which may not be identical across different reports of the same incident) so that multiple reports are not counted as separate incidents. Thus, data sets that triangulate across multiple underlying sources (e.g., the Mass Shooter Database and the Gun Violence Archive) require additional effort toward de-duplication and validation.

And even when data sources use the same definition of what constitutes a mass shooting, variation in data collection methods can result in different estimates of mass shooting prevalence. As an example of this issue, Duwe (2020) triangulated information from the SHR, online newspaper databases, and unpublished mass shooting data sets and found that the Mother Jones database missed more than 40 percent of mass shootings that met the source's own criteria between 1982 and 2013. Greater missingness occurred for incidents further back in time, likely because of greater challenges with accessing comprehensive news accounts prior to widespread use of digital media for news reporting. Comparing four data sources for mass shootings (the Everytown for Gun Safety Support Fund's mass shootings database, the Gun Violence Archive, the Mother Jones database, and the FBI's SHR database), and applying the same definition of mass shooting to each (four or more fatalities, excluding the shooter), Booty et al. (2019) found that estimates of the number of mass shootings in 2017 ranged from five (Mother Jones) to 24 (Gun Violence Archive). When triangulating across data sets, the researchers identified 32 unique mass shooting incidents, but only two incidents (6.3 percent) were common to all four data sources. For further discussion, see Booty et al. (2019), Duwe (2000, 2020), and Huff-Corzine and Corzine (2020), which contain a more comprehensive discussion of data collection efforts and their limitations.

Are Mass Shootings on the Rise?

In 2014, the FBI released a study showing that "active shooting incidents" had increased at an average annual rate of 16 percent between 2000 and 2013 (Blair and Schweit, 2014). [8] In contrast to the varied definitions for mass shootings, there is an agreed-upon definition among government agencies for *active shooter*: "an individual actively engaged in killing or attempting to kill people in a confined and populated area; in most cases, active shooters use firearm(s) and there is no pattern or method to their selection of victims" (U.S. Department of Homeland Security, 2008, p. 2). Using a modified version of this definition to include incidents that had multiple offenders or occurred in confined spaces, Blair and Schweit (2014) found that

Case: 1:21-cv-04595 Document #: 98-1 Filed: 04/24/23 Page 162 of 304 PageID #:1689

active shootings had increased from only one incident in 2000 to 17 in 2013. The FBI active shooting reports, which are now produced annually, identified 20 active shooter incidents in 2016, 30 incidents in 2017, 27 incidents in 2018, and 28 incidents in 2019 (FBI, 2018g, 2019g, 2020).

Although Blair and Schweit (2014) explicitly stated that their original FBI active shooter study was "not a study of mass killings or mass shootings" (p. 5), extensive media coverage cited the study as evidence of a sharp rise in mass shootings and mass shooting fatalities (Lott, 2015). However, Blair and Schweit (2014)'s definition of an active shooter incident includes some incidents that would be excluded under any of the commonly used criteria for mass public shootings (see Table 1) because it does not set any casualty threshold. For example, Blair and Schweit's definition includes some incidents in which no people were injured or in which one person was killed and no others were wounded. Setting a threshold of zero victims increases the potential for measurement error, because shooting incidents with no casualties are more difficult to identify from police records and are less likely to receive media coverage (Duwe, Kovandzic, and Moody, 2002). Additionally, because it should be relatively easier to identify more-recent shootings with few fatalities, a low casualty threshold will tend to systematically bias estimates of the number of shootings upward over time. [9] Even when using a higherfatality threshold, mass shooting data sources that rely solely on news reports to identify cases also appear to systematically undercount incidents from earlier periods (see previous section and Duwe, 2020).

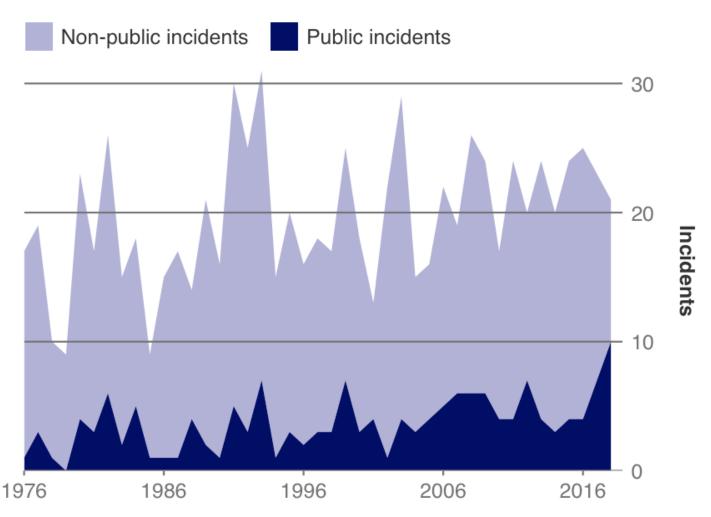
Even when a more restrictive casualty threshold of four or more fatally injured victims (excluding the shooter) is imposed, empirical evidence on trends in these incidents varies depending on whether the motivation of the shooter is included as a criterion for considering an event a mass shooting. In their analysis of mass shooting trends from 1999 to 2013, Krouse and Richardson (2015) distinguished among mass shootings occurring in public locations that are indiscriminate in nature ("mass public shootings"), mass shootings in which the majority of victims are members of the offender's family and that are not attributable to other criminal activity ("familicide mass shootings"), and mass shootings that occur in connection to some other criminal activity ("other felony mass shootings"). Duwe (2020) adopted similar distinctions in his analysis of mass shootings over the longer time frame of 1976 to 2018.

Figures 1 and 2 show trends in mass shooting incidents and mass shooting fatalities, using the data provided by Duwe (2020), who created his own data set aggregating across several of the sources described in this essay. Using Krouse and Richardson (2015)'s definition of "mass public shootings," Duwe (2020) found that such events constituted about 19 percent of all mass shooting incidents and 27 percent of all mass shooting fatalities from 1976 to 2018. The data from multiple studies suggest a slight increase in the incidence rate of mass public shootings over the past four decades (Cohen, Azrael, and Miller, 2014; Krouse and Richardson, 2015; Duwe, 2020). From 2016 to 2018, the annual rate of mass public shooting incidents was about one incident per 50 million people in the United States (Duwe, 2020). Considering the number of

Case: 1:21-cv-04595 Document #: 98-1 Filed: 04/24/23 Page 163 of 304 PageID #:1690

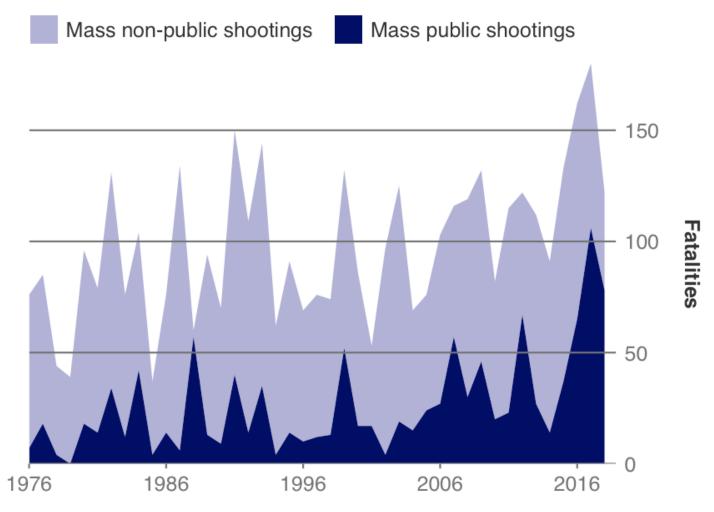
fatalities in these shootings, this corresponds to approximately 0.4 percent of all homicides, or approximately 0.2 percent of all firearm deaths, over that period. However, using an expanded definition of mass shootings that includes domestic- or felony-related killings, there is little evidence to suggest that mass shooting incidents or fatalities have increased (Cohen, Azrael, and Miller, 2014; Krouse and Richardson, 2015; Fox and Fridel, 2016). Adjusted for changes in the size of the U.S. population, the incidence of all mass shootings (four or more fatally injured victims, excluding the offender, regardless of shooter motivation or circumstances) was highest in the late 1980s and early 1990s, averaging one incident per 10 million people from 1989 to 1993 (Duwe, 2020). More recently, between 2016 and 2018, the annual rate of all mass shooting incidents was about one incident per 14 million people (Duwe, 2020). Considering the number of fatalities in these mass shootings, this corresponds to approximately 0.8 percent of all homicides, or approximately 0.4 percent of all firearm deaths, over that period. Thus, different choices about how to define a mass shooting result in different findings for both the prevalence of these events at a given time and whether their frequency has changed over time.

Figure 1. Trends in Mass Shooting Incidents, 1976–2018



SOURCE: Author analysis of data from Duwe, 2020.

Figure 2. Trends in Mass Shooting Fatalities, 1976–2018



SOURCE: Author analysis of data from Duwe, 2020.

Even if we set aside the facts that reliance on different data sources over time complicates measurement and that findings can depend on how mass shootings are defined, the relative rarity of mass shooting events makes analysis of trends particularly difficult. Chance variability in the annual number of mass shooting incidents makes it hard to discern a clear trend in the risk of such incidents, and trend estimates are sensitive to outliers and to the time frame chosen for analysis (Fox and DeLateur, 2014). For example, although Krouse and Richardson (2015) found evidence of an upward trend in mass public shootings from 1999 to 2013, they noted that the increase was driven largely by events in 2012, in which there was an unusually high number of mass public shooting incidents. Additionally, Lott (2015) suggested that the FBI study's estimate of a dramatic increase in active shooter incidents was largely driven by the choice of 2000 as the starting date, because that year had an unusually low number of shooting incidents. Conducting his own analysis to cover 1977 through 2014, and adjusting the data to exclude events with fewer than two fatalities, Lott (2015) found a much smaller and statistically insignificant increase (less than 1 percent annually) in mass shooting

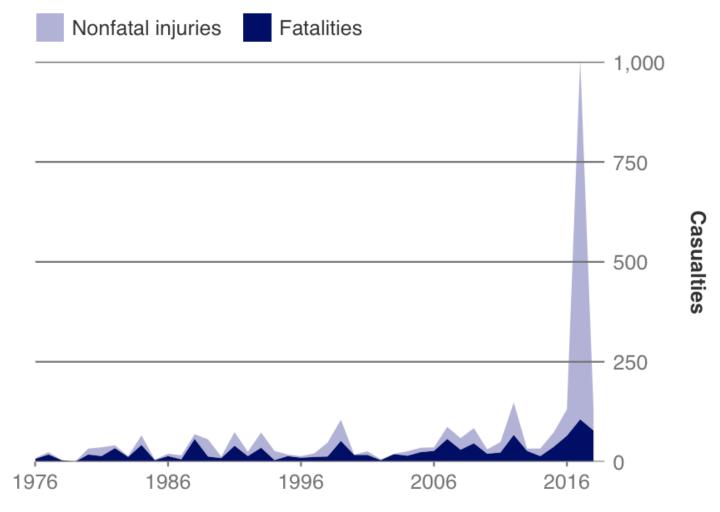
Case: 1:21-cv-04595 Document #: 98-1 Filed: 04/24/23 Page 165 of 304 PageID #:1692

fatalities over time. However, when other researchers extended the time frame to cover morerecent years and used a four-fatality threshold for mass public shootings, their findings suggested a significant increase in the incidence and lethality of these events over time (Sanders and Lei, 2018; Duwe, 2020; Lankford and Silver, 2020).

The leverage of extreme incidents is even clearer when examining trends in the number of casualties from mass public shootings over time (Figure 3). The data on deaths and injuries from 2017 mass public shootings are particularly striking: Just one of the seven incidents that occurred (the Las Vegas shooting in October 2017) accounted for more than half of all mass public shooting fatalities and nonfatal injuries in that year. [10] However, even when we exclude the Las Vegas incident, 2008 through 2018 saw the highest average rate of casualties from mass public shootings since the 1970s. In 2018, mass public shootings were responsible for approximately one death per 4 million people in the United States (Duwe, 2020), representing fewer than one of every 200 homicides in that year.

Although different choices about how to define a mass shooting and the period over which to calculate mass shooting trends have resulted in disagreement about whether the frequency of mass shootings has risen, there is clear evidence that the media's use of the term *mass shooting* has increased significantly in recent decades (Roeder, 2016). Unfortunately, the trends one finds in measuring mass shootings over time depend heavily on how the term is defined and the precise period over which the trend is observed, and these trends are likely to be biased by changes in the completeness of the underlying data sources over time. This ambiguity makes it difficult to draw firm conclusions about how these incidents have changed over time or how that information should be used as we try to understand the determinants, costs, and policy implications of mass shootings.

Figure 3. Trends in Mass Public Shooting Casualties, 1976–2018



SOURCE: Author analysis of data from Duwe, 2020.

Characteristics of Mass Public Shootings

Several studies, largely focused on mass public shootings, have sought to describe the characteristics of individuals who perpetrate mass shootings, evaluate characteristics of each mass shooting incident, and identify the behaviors and motivations that preceded each incident. Most of these studies are purely descriptive, not comparative, and thus should not be interpreted as providing evidence of whether specific individual-level or community-level characteristics are predictive of someone perpetrating a mass shooting.

According to this literature (see, for example, Capellan et al., 2019; Duwe, 2020), the perpetrators of mass public shootings in the United States have been overwhelmingly male (98 percent) and are most commonly non-Hispanic White (61 percent). In addition, they are most commonly younger than age 45 (82 percent); more specifically, 26 percent of mass public shooters from 1976 to 2018 were younger than age 25, 27 percent were aged 25 to 34, and 29 percent were aged 35 to 44. Relative to the overall U.S. population, mass public shooting offenders are much more likely to be male and are somewhat younger; relative to other homicide offenders, males and non-Hispanic Whites are overrepresented among mass public shooters, and mass public shooters are older. For comparison, of the overall U.S. population in 2019, approximately 49

Case: 1:21-cv-04595 Document #: 98-1 Filed: 04/24/23 Page 167 of 304 PageID #:1694

percent was male, 60 percent was younger than age 45, and 60 percent was non-Hispanic White (U.S. Census Bureau, 2020). Of murderers in 2018 with known offender characteristics, 88 percent were men, 84 percent were younger than age 45 (38 percent younger than 25, 31 percent aged 25 to 34, and 16 percent aged 35 to 44), and 42 percent were White (Hispanic ethnicity information was not provided) (FBI, 2019f).

Media coverage often links mass public shootings with serious mental illness (McGinty et al., 2014, 2016), but estimates of the prevalence of mental illness among mass public shooting offenders vary widely depending on the types of incidents considered and the methods used to define and identify mental illness. Rates of formal diagnoses of psychotic disorders (including diagnoses made post-incident, which may be affected by the incident itself) among mass public shooters are estimated to be about 15 to 17 percent (Stone, 2015; Fox and Fridel, 2016).^[11] Studies that use a broader definition of mental illness and consider informal evidence indicative of mental health problems (e.g., statements by law enforcement or family before or after the incident) have found prevalence rates ranging from 30 to 60 percent (Taylor, 2018; Capellan et al., 2019; Duwe, 2020). This informal evidence, which is often obtained subsequent to the incident, is invariably affected by the act of mass violence itself (Skeem and Mulvey, 2020). It does not suggest that mental illness is useful for predicting a subsequent mass shooting. Of note, a study of 106 perpetrators of mass public shootings in the United States between 1990 and 2014 found that less than 5 percent of offenders (n = 5) had a history of involuntary commitment or adjudication of dangerousness that would have prohibited them from purchasing a firearm following the federal mental health background check (Silver, Fisher, and Horgan, 2018). Although most research supports that, overall, people with serious mental illness are overrepresented among mass public shooters (Duwe, 2020; Skeem and Mulvey, 2020), this does not imply that serious mental illness causes mass shootings, just as we cannot conclude that being a young man causes mass shootings.

Other researchers and analysts have noted that many mass shooters have a history of domestic violence. Using three mass shooting databases (whose underlying data sources

Experts Weigh In

pare expert opinions on how policies may affect mass tings in your state and the s a whole. »

include media reports, court records, and police records) and their own search of criminal records, Zeoli and Paruk (2020) analyzed 89 individuals who perpetrated a mass shooting (involving four or more fatalities, excluding the offender) between 2014 and 2017. Of the 89 individuals, 28 (31 percent) had a history of suspected domestic violence. The authors identified that, of those 28, 17 (61 percent) had prior interaction with the criminal justice system

related to domestic violence, and six individuals had a felony or misdemeanor conviction for domestic violence. Using a different definition of mass shooting (involving four or more casualties, including the perpetrator, and excluding felony-related mass shootings), Gu (2020) found that 36 percent of mass shooting incidents from 2014 to 2019 involved an offender with a history of domestic violence or violence against women. Of note, both of these studies

Case: 1:21-cv-04595 Document #: 98-1 Filed: 04/24/23 Page 168 of 304 PageID #:1695

included mass shooting familicides, which represent the modal type of mass shooting. Given that intimate partner homicides are commonly preceded by prior incidents of nonfatal domestic violence (Campbell et al., 2007), it may be expected that perpetrators of mass shooting familicides commonly have prior histories of domestic violence. In a study of mass murders from 2006 to 2016 (74 percent of which were shootings), Fridel (2017) found that 30 percent of familicides, 7 percent of mass public killings, and 3 percent of felony-related killings involved an offender with a known history of domestic violence. But because we do not know the rate of domestic violence in the general population based on comparable definitions and data sources, it is not clear the precise extent to which prior domestic violence represents a risk factor for perpetrating a mass shooting.

It is challenging to make broad generalizations about the individual-level motivations of mass shootings. When mass shootings are broadly defined to include familicides, felony-related killings, and mass public shootings, the events include heterogeneous incident types that vary in terms of victim, offender, and incident characteristics (Fridel, 2017; Taylor, 2018). Felony-related killings exhibit particular differences from familicides and mass public shootings. They are, by definition, criminally motivated (in contrast to familicides and mass public shootings, which are more commonly motivated by relationship problems, group grievances, or ideological extremist beliefs); result in significantly fewer deaths; and are significantly less likely to conclude with the death of the perpetrator (Fridel, 2017; Capellan et al., 2019). The etiology of felony-related mass shootings thus, unsurprisingly, bears a stronger resemblance to firearm homicides more broadly. In contrast, familicides and mass public shootings show stronger similarities in terms of offender characteristics and motivations (Fridel, 2017).

Even the subset of mass public shootings seems to encompass a variety of offender types, and some researchers have suggested that the relative prevalence of these offender typologies has changed over time (Capellan et al., 2019). When Capellan and colleagues considered incidents in which an offender used a firearm to kill or "attempt to kill" four or more victims in a public setting, they found that school shootings constituted the majority of mass public shooting incidents in the 1960s and 1970s, and workplace shootings became increasingly prevalent in the 1980s to 2000s (Capellan and Gomez, 2018; Capellan et al., 2019). The past decade has seen an increase in the percentage of mass public shootings that are posited to relate to fame-seeking on behalf of the individual or on behalf of a broader ideology (Capellan et al., 2019; Lankford and Silver, 2020). Some researchers have suggested that this rise in fame-and attention-seeking motivations among mass public shooters has contributed to an escalation in the lethality of these incidents (Langman, 2018; Lankford and Silver, 2020).

Although there are some noted differences across different types of mass public shootings (Capellan and Anisin, 2018; Capellan et al., 2019), an overarching commonality is that most incidents are preceded by some level of planning by the shooter. Among active shooting cases from 2000 to 2013 for which sufficient information was available, 62 percent of offenders

Case: 1:21-cv-04595 Document #: 98-1 Filed: 04/24/23 Page 169 of 304 PageID #:1696

planned the attack for more than one month, and 9 percent planned for more than one year (Silver, Simons, and Craun, 2018). Focusing on incidents involving eight or more fatally injured victims, Lankford and Silver (2020) found that at least half of the 18 high-fatality mass public shootings between 2010 and 2019 involved a planning period of one year or longer. About 40 percent of mass public shooters make some form of verbal or written threat (e.g., threats made in front of family or friends or posted to social media) prior to the incident (Duwe, 2020).

Another strand of research has described the types of firearms used in mass shooting incidents and the extent to which variation in weapon choice relates to the lethality of the incident. There are noted challenges to conducting such analyses, partly because of the absence of any official data source that provides complete information on the types of firearms or associated equipment (e.g., ammunition, magazines, scopes) used in shootings (for further discussion, see Koper, 2020). It is common for multiple firearms to be involved in public shootings: Various studies have indicated that multiple firearms were involved in an estimated 34 percent of active shooting incidents across 2000–2017 (de Jager et al., 2018), 42 percent of mass public shooting incidents across 1999–2013 (Krouse and Richardson, 2015), and 79 percent of mass public shooting incidents that resulted in eight or more fatalities across 1966–2019 (Lankford and Silver, 2020). In an analysis of mass public shootings in which shooters attempted to kill at least four individuals, Capellan and Jiao (2019) found that 80 percent of offenders had prior access to a firearm, although 41 percent of those individuals obtained additional firearms for the incident.

As shown in Table 3, handguns are the firearm most commonly involved in active shootings and mass shootings; semiautomatic rifles or "assault-style" weapons are used in an estimated 10 to 36 percent of active shootings and mass shootings. [16] The use of large-capacity magazines (LCMs) is more common in mass public shootings and high-fatality mass shooting incidents than it is in firearm crimes overall. The estimated prevalence of LCM involvement in mass shootings ranges from 20 to 60 percent, or from 45 to 60 percent when restricting the denominator to mass public shootings or high-fatality mass shootings (Table 3). For comparison, LCM-equipped firearms are estimated to constitute 22 to 36 percent of crime guns recovered by police in most urban jurisdictions (Koper et al., 2018). The estimated prevalence of LCM-equipped firearms in the overall stock of civilian-owned firearms is about 15 to 20 percent, although these estimates come from survey data from 1994, and the prevalence has likely increased since then (Cook and Ludwig, 1996; Kleck, 2020).

Table 3. Percentage of Mass Shooting Incidents Involving the Use of a Firearm with a Large-Capacity Magazine or the Use of a Semiautomatic Rifle or Assault Weapon

Case: 1:21-cv-04595 Document #: 98-1 Filed: 04/24/23 Page 170 of 304 PageID #:1697

| Data Source | Mass Shooting Definition | Period of Study and Number of incidents | Firearm with an LCM ^a (%) | Semiautomatic Rifle or Assault Weapon ^b (%) |
|--|---|---|---|--|
| Everytown for Gun Safety Support Fund (2018) | Four or more people fatally injured | 2009–2017, n = 173 | 20–58 | NR |
| Koper et al. (2018) | Four or more people fatally injured | 2009–2015, n = 145 | 19–57 | 10–36 |
| Krouse and Richardson (2015) | Four or more people fatally injured | 1999–2013, n = 317 | NR | 10 |
| Klarevas (2016) | Six or more people fatally injured | 1966–2015, n = 111 | 47 | 26 |
| Krouse and Richardson (2015) | Public, did not involve other crimes, four or more people fatally injured | 1999–2013, n = 66 | NR | 27 |
| Follman, Aronsen, and Pan (2020) | Public, did not involve other crimes, four or more people fatally injured | 1982–Jan 2019, n = 92 | 45–61 (or higher) | NR |
| Capellan and Jiao (2019) | Public, did not involve other crimes, attempted to kill four or more people | 1966–2017, n = 318 | NR | 10–34 |
| Klarevas (2019) | Public, did not involve other crimes, four or more people fatally injured | 1966–2017, n = 43 | NR | 30 |
| Lankford and Silver (2020) | Public, did not involve other crimes, eight or more people fatally injured | 1966–2019, n = 34 | NR | 44 |
| de Jager et al. (2018) | Active shooting | 2000–2017, n = 248 | NR | 25 |
| Blau, Gorry, and Wade (2016) ^c | Mass shooting, spree shooting, or active shooting | 1982–2014, n = 184 | 37 | 34 |

SOURCE: Information obtained from Blau, Gorry, and Wade (2016), de Jager et al. (2018), Capellan and Jiao (2019), Klarevas (2019), Koper (2020), and Lankford and Silver (2020).

NOTE: NR = not reported.

Case: 1:21-cv-04595 Document #: 98-1 Filed: 04/24/23 Page 171 of 304 PageID #:1698

- ^a An LCM is considered to be an ammunition feeding device capable of holding more than ten rounds of ammunition. Koper et al. (2018) includes incidents that involved gun models commonly sold with an LCM, even if the magazine recovered was not reported.
- ^b There is no agreed-upon definition of assault weapon, and studies differed in how such rifles or weapons were defined. Most studies considered specific firearms based on federal definitions (Krouse and Richardson, 2015) or a combination of state and federal definitions (Klarevas, 2016, 2019; Koper et al., 2018); some studies (de Jager et al., 2018; Koper et al., 2018; Capellan and Jiao, 2019) considered upper bounds based on a broader definition to include all semiautomatic rifles. The exact definition used was unclear in some studies (Blau, Gorry, and Wade, 2016; Lankford and Silver, 2020).
- ^c The criteria for incident inclusion used by Blau, Gorry, and Wade (2016) are somewhat unclear, but the authors appear to consider mass public shootings with four or more fatalities, public spree shootings with two or more fatalities, and active shooter incidents identified by the FBI.

Finally, a few 2018 and 2019 studies have described community-level characteristics associated with mass shooting incidence. County-level analyses of mass shootings (excluding felony-related mass shootings) from 1990 to 2015 show a higher incidence rate of mass shootings occurring in counties with higher levels of or increasing trends in income inequality (Cabrera and Kwon, 2018; Kwon and Cabrera, 2019a, 2019c), higher population density (Cabrera and Kwon, 2018; Kwon and Cabrera, 2019b), allower levels of civic engagement (Kwon and Cabrera, 2019b). However, these findings may simply reflect the fact that mass shootings are more likely to occur in more-populous urban areas where larger gatherings of people are likely to be found; these estimated associations do not clearly show a causal effect of economic or sociocultural conditions on mass shootings.

Research on Policies That Might Reduce Mass Shootings

The nature of mass shootings creates serious challenges for developing policies that will effectively prevent their occurrence. For instance, their rarity makes it difficult to extract generalizable information to identify useful predictors of risk. The low base rates of these events also ensure that policies targeting individuals based on risk factors would result in an extremely high rate of false positives; even the best available risk factors can identify only a subpopulation in which the risk of committing a mass shooting is on the order of one in a million. Finally, because individuals who perpetrate mass shootings often die by suicide (or expect to be killed by someone trying to stop the shooting), standard deterrence strategies used in crime prevention are unlikely to work; increasing the certainty or severity of punishments seems unlikely to be effective when the perpetrator already expects to die in the mass shooting. [17]

The relative rarity of mass shooting incidents, and particularly mass public shooting incidents, also makes it challenging to empirically assess whether existing policies are effective in preventing them. Since 2015, there has been an increase in published research that takes causal inference methods commonly used to evaluate policy effects on other forms of gun violence and applies these methods to study the effects of state firearm policies on mass shooting incidence or mass shooting fatalities.^[18] However, mass shootings are sufficiently

Case: 1:21-cv-04595 Document #: 98-1 Filed: 04/24/23 Page 172 of 304 PageID #:1699

rare that the statistical assumptions of these methods rarely hold, threatening the validity of the effect estimates and statistical inference and potentially resulting in spurious effects (Xue et al., 2017). ^[19] In some cases, modeling rare outcome data with a large number of covariates can result in quasi- or complete separation, whereby one or more of the covariates perfectly predicts the outcome (Albert and Anderson, 1984). ^[20] Even if models do converge, the sparseness of these outcome data risk model overfitting and biased estimates. These issues are likely exacerbated in studies that adopt narrower definitions of mass shootings—for example, restricting the definition to mass public shootings or to mass public shootings involving a higher threshold of fatalities.

Even in studies that use models more appropriate for the distributional characteristics of mass shooting outcomes, the high degree of variability in mass shooting prevalence, injuries, and fatalities makes analyses of the effects of state policies on mass shooting outcomes subject to extremely low statistical power. Even if a state passed a policy that had large effects on mass public shootings (e.g., it cut the probability of such incidents in half), it is still unlikely that a study of that policy using appropriate statistical methods would find it to have a statistically significant effect. This occurs because most states already have zero mass public shootings in any given year, and, when the rate in the pre-period was already at, or very close to, zero, it is not possible to detect a decline in the risk of such shootings that is due to the policy—no matter how large that effect may be. This pervasive lack of statistical power can result in a published literature characterized by exaggerated effect sizes for any effects that are found to be statistically significant, and these significant estimates, in many cases, may misidentify the direction of the true effect (Gelman and Carlin, 2014).

Further complicating identification of the causal effects of policies on mass shootings is the potential issue of *reciprocal causation*; that is, high-profile mass shooting incidents may themselves prompt legislative changes. Luca, Malhotra, and Poliquin (2020) evaluated the association of mass public shooting occurrence in states with subsequent legislative activity related to firearms. Using data from 1989 to 2014, they found a 15-percent increase in the number of state firearm bills introduced in the year following a mass shooting; states with Democratic-controlled legislatures did not show significant effects of firearm laws enacted, while states with Republican-controlled legislatures were significantly more likely to enact more-permissive gun laws subsequent to a mass public shooting incident in the state. If mass public shootings are a cause rather than (or in addition to) a consequence of firearm policy, models that fail to appropriately account for this reciprocal relationship may produce biased and misleading estimates of the effects of laws on mass shootings.

Given statistical challenges with accurately estimating the causal effects of a policy on mass shootings, we may be able to learn more about the potential for effective prevention strategies through detailed analyses of the characteristics of mass shootings (ideally for both incidents that occurred and incidents that are believed to have been averted) or through detailed review

Case: 1:21-cv-04595 Document #: 98-1 Filed: 04/24/23 Page 173 of 304 PageID #:1700

of how specific policies are being implemented in an effort to prevent mass shootings. Descriptive evidence that mass shootings involving firearms equipped with LCMs result in significantly higher injury and fatality rates may suggest potential benefits of restricting access to LCMs (Koper, 2020), although it may be that the choice to use LCMs reflects more-lethal intentions of the shooter (Kleck, 2016). Similarly, evidence that many mass shooters have a history of domestic violence has led some to suggest potential benefits of stronger implementation of firearm prohibitions related to domestic violence (Zeoli and Paruk, 2020). Finally, although extreme risk protection orders are most commonly requested because of concerns about self-harm (Parker, 2015; Swanson et al., 2017, 2019), a detailed review of case records from 159 such orders issued in California found that 21 (13.2 percent) involved an individual who had access to or was planning to access firearms and expressed or exhibited behavior suggesting intent to perpetrate a mass shooting (Wintemute et al., 2019). These analyses do not directly assess the causal effect of policies on mass shooting outcomes, but they can still provide important insights for crafting and implementing policies.

Conclusions

It is difficult to make accurate generalizations about mass shootings. These challenges occur, in part, because (1) there are many different definitions for mass shootings, each of which may be useful for a somewhat different purpose; (2) we have incomplete data sources that do not track these events in a consistent manner over time, likely include a biased sample of incidents, and lack the full range of individual and incident characteristics researchers are interested in; and (3) there are statistical limitations inherent in trying to draw inferences from rare and idiosyncratic events. Using definitions that differ in their thresholds for the number and type of victims or the circumstances around the incident results in vastly different estimates of how often mass shooting events occur, how the rate has changed over time, and incident characteristics. Even across studies with a similar definition of a mass shooting, the different data sources (or combinations of data sources) used sometimes result in different findings. A comprehensive administrative data source that reliably captures mass shooting incidents with sufficient detail does not exist; relying on news reports alone is problematic because of well-established systemic bias in what gets reported. Although these issues create problems for understanding the prevalence and patterns of mass shootings at a given point in time, they are exacerbated when trying to understand how mass shootings have evolved over time; this is because of temporal variation in the completeness of underlying data sources that could be used to identify and classify incidents. There may be fewer concerns regarding incomplete or biased data when adopting a narrower definition of mass shootings that includes only the highest-profile incidents with multiple fatalities, but movement toward a more restrictive definition results in identifying a set of incidents that are increasingly rare and idiosyncratic. Thus, the researcher makes a trade-off that mitigates the serious problems with the underlying data but creates additional statistical problems resulting from a much

Case: 1:21-cv-04595 Document #: 98-1 Filed: 04/24/23 Page 174 of 304 PageID #:1701

smaller sample size that will not support accurate generalizations to a broader population of mass shooters.

Greater consensus about the number of mass shootings and how their prevalence has changed over time could likely be achieved by adopting a mass shooting definition based on objective criteria for which data are widely available. Defining incidents based on a threshold of fatalities rather than of nonfatal injuries is likely to produce more-reliable and morecomparable estimates over time. However, even a definition that includes nonfatal injuries is arguably preferable to one that requires having accurate data on victim-offender relationship, incident circumstances, or perpetrator motivations. These features, though captured in some administrative data sources and potentially identifiable through reviews of news reports or court and police records, are often subjectively determined and are inconsistently available in the underlying data. Relative to the criterion of number of victims, assessment of whether a mass shooting incident was related to criminal activity or whether victims were selected randomly is more likely to be influenced by the perspective of the person reporting or recording the information. Depending on the purpose of the research, it may still be necessary to rely on these more-subjective characteristics. However, researchers may need to consider the extent to which they are studying the characteristics of the events themselves rather than, for instance, how the media covers these incidents.

Even if we did have definitive and complete data sources on the characteristics of all mass shooting incidents, it is still likely to be exceedingly difficult to identify useful predictors of mass shootings. With the exception of male sex, risk factors that appear to be overrepresented among mass shooters relative to the general population are often still uncommon among offenders on an absolute level. Thus, even if one could find a way to prevent individuals with a documented serious mental illness from committing a mass shooting—for example, developing and delivering effective treatments to more than 10 million Americans (Bose et al., 2018) or effectively preventing their access to firearms—most mass shootings would still occur because only a fraction of mass shootings are committed by individuals with a documented history of serious mental illness. Researchers are exploring novel machine learning approaches to using information on domestic violence dispatches or patterns of firearm acquisition for violence risk prediction (Berk and Sorenson, 2020; Laqueur and Wintemute, 2020), although the value of these approaches for predicting mass violence is still unknown. Other approaches focused on reducing the lethality of mass shootings may be effective in mitigating the harms of some incidents, even if the approaches do not prevent the occurrence of such incidents.

Finally, even if states and other jurisdictions developed and implemented policies that prevented mass shootings, there are several statistical challenges that make it unlikely that researchers will be able to demonstrate statistically significant benefits of the effective policies. The assumptions underlying many of the approaches commonly used to evaluate the effects of gun policies are likely not to be met when assessing effects on mass shooting

Case: 1:21-cv-04595 Document #: 98-1 Filed: 04/24/23 Page 175 of 304 PageID #:1702

incidence or lethality. The rare nature of mass shootings, and particularly mass public shootings, seriously limits statistical power for detecting policy effects, and studies that find statistically significant associations of policies with mass shootings may greatly overestimate the magnitude of these effects.

However, these difficulties should not impede policymakers from trying to develop and implement better policies. Mass shootings are tragic, traumatic, and shocking events. Because of that, they attract media attention and galvanize public opinion. However, they represent a very small fraction of the homicides in the United States. Precisely because mass shootings are so rare and it is so difficult to predict exactly who will perpetrate them, the overall costs and benefits of any policy to address them are likely to be driven by the policy's effects on a broader set of far more-common outcomes, such as overall homicide, suicide, domestic violence, and population health. Improved treatment for mental health problems or suicidality might reduce certain types of mass shootings, but such policies may also reduce far more-common forms of homicide, suicide, and crime and may also improve economic productivity and social well-being. Similarly, policies aimed at reducing domestic violence or preventing crime are worth pursuing for those benefits, and they may also reduce the incidence of some types of mass shootings (i.e., familicides, felony-related killings). Focusing efforts on implementing public policies that reduce violence more broadly, rather than making policy decisions based only on the most-extreme forms of such violence, may not eliminate mass shootings but may reduce their occurrence and lethality and ultimately save more lives.

MASS SHOOTINGS

Notes

- 1. Various studies adopt different terminology for mass shooting events that occur in public locations and in which victims are selected indiscriminately. Because most of the studies described in this report use the term *mass public shooting* (as opposed to *public mass shooting*, for example), when referring to these types of events, we use that term.
- 2. Similar definitional issues exist in the study of *school shootings*. For further discussion specific to school shootings, see Elsass, Schildkraut, and Stafford (2016) and Levine and McKnight (2020).
- 3. There are other definitional issues around what constitutes a mass shooting incident that we do not discuss fully here. Namely, a mass shooting incident and its associated casualties are typically delineated as a shooting of multiple victims simultaneously or over a relatively short period of time and in close geographic proximity. However, in most existing data sets (Table 1), there is ambiguity over what constitutes a relatively short period of time or close geographic proximity. Although the FBI has definitions to distinguish *mass murder* (one event, one location), *spree murder* (one event, two or more locations, without the offender "cooling off" emotionally between murders), and *serial murder* (separate events, with the offender "cooling off" emotionally between homicidal events), it is somewhat

Case: 1:21-cv-04595 Document #: 98-1 Filed: 04/24/23 Page 176 of 304 PageID #:1703

unclear the extent to which existing mass shooting databases differ in how they classify or count events based on time frame or geographic distance parameters. For further discussion, see Krouse and Richardson (2015).

- 4. As noted by Duwe (2020), some mass shooting incidents involve victims shot in both residential and public settings.
- 5. The National Incident-Based Reporting System (NIBRS), though not commonly used in mass shooting studies, also contains information that could be used to assess mass shooting incidents. The NIBRS data feed into the SHR data system but contain substantially more information on incident characteristics. However, NIBRS data are only available starting in 1991 and do not currently have complete coverage of the United States. The number of participating jurisdictions also varies greatly over time, from almost all agencies in only three states in 1991 (Reaves, 1993), to 7,283 agencies in 42 states and Washington, D.C., in 2018 (FBI, 2019e). For a comparison of mass murders as captured by SHR and NIBRS data, see Huff-Corzine et al. (2014).
- 6. A noted limitation of the victim-offender relationship item in the SHR is that the variable is coded with respect to only the first victim listed, and the same code is applied to all victims (i.e., the victim-offender relationship is linked to the offender data; the same is true of weapon used and circumstance codes) (Fox and Swatt, 2009; Huff-Corzine et al., 2014). Thus, an incident in which an offender killed three members of his or her family and one stranger might be classified as a familicide or a mass public shooting depending on who is listed as the first victim in the SHR.
- 7. Missingness by jurisdiction in the SHR is commonly handled through a weighting process using the ratio of homicide counts in the FBI's Uniform Crime Reports to reported homicide counts in the SHR database in order to produce national or state-level estimates (Fox and Swatt, 2009). Several methods for imputing missing item data in the SHR have been developed and are discussed in detail in Wadsworth and Roberts (2008) and Roberts, Roberts, and Wadsworth (2018).
- 8. The stated purpose of the FBI active shooter reports is to provide federal, state, and local law enforcement with data to better understand how to prevent, prepare for, respond to, and recover from active shooter incidents; data collection methods used to inform the reports are described in Blair and Schweit (2014). Data cover the United States and come from multiple sources, including FBI reporting, official law enforcement investigative data, publicly available sources (e.g., governmental agency reports, journal articles), a comprehensive list of incidents developed by the New York City Police Department, and a study of shooting incidents in the United States from 2000 to 2010 conducted by the Advanced Law Enforcement Rapid Response Training Center.
- 9. As an example of this issue, the discontinued Stanford Mass Shootings in America database, which relied solely on online media sources to identify mass shooting events, cautioned its users that information in the database spanned a period in which reporting shifted from traditional media to digital media, and thus annual incident counts partially reflect changes in data collection methodology (see Stanford Geospatial Center, undated). Thus, the more than threefold surge in mass shooting incidents from 2014 to 2015 shown in the Stanford data likely reflects increased online reporting and not necessarily a true increase in the rate of mass shootings.
- 10. To illustrate how simple linear trend models of mass shootings are influenced by outliers, the estimated slope from a linear trend model of mass public shooting fatalities from 1999 to 2017 is 2.3 (standard error = 0.93); excluding the Las Vegas shooting, this slope is reduced to 1.3 (standard error = 0.73).
- 11. For comparison, general population studies tend to find the prevalence of diagnosable psychotic disorders (including schizophrenia, schizoaffective psychosis, bipolar disorder with accompanying delusion, substance-induced psychotic disorder, and delusional disorders) to be less than 1 percent, although the prevalence varies substantially as a function of the method of measurement and the population studied (see Moreno-Küstner, Martín, and Pastor, 2018). There are no benchmarks for prevalence that use the methods of post-incident diagnosis that are used with mass shooters.
- 12. The same study identified romantic or family issues (e.g., divorce, child custody dispute) as a potential contributing stressor or triggering event in 46 percent of familicides, 23 percent of mass public killings, and 4 percent of felony-related mass killings (Fridel, 2017).
- 13. Compared with homicides overall and with felony-related mass shootings, familicide mass shootings and mass public shootings are significantly more likely to end with the death of the perpetrator by suicide. Although estimates

Case: 1:21-cv-04595 Document #: 98-1 Filed: 04/24/23 Page 177 of 304 PageID #:1704

vary depending on the period of analysis, data source, and definitions applied, approximately 40 to 60 percent of mass public shooters died by suicide (Duwe, 2004, 2020; Lankford, 2015; Fridel, 2017). Estimates are comparable for familicide mass shootings or mass killings but are far lower (less than 5 percent) for felony-related mass shootings or mass killings (Duwe, 2004; Fridel, 2017).

- 14. There is no official classification of mass public shooting or shooter typologies, but researchers have often distinguished between workplace violence (disgruntled employee violence), school shootings, ideological extremism, and rampage shootings (i.e., generally, the shootings that do not fall in the other categories) (Duwe, 2004; Lankford, 2013; Capellan et al., 2019).
- 15. As discussed previously, different definitions of mass public shootings result in different temporal patterns. If mass public shootings are defined more narrowly as incidents with four or more victims killed, school shootings were very rare prior to the 1990s and constituted 11 percent of all mass public shootings from 1976 to 2018 (Duwe, 2020). Under the broader definition used by Capellan et al. (2019), 25 percent of mass public shootings from 1966 to 2017 occurred in schools.
- 16. The identification of "assault weapons" in these incidents is not straightforward, partly because the term assault weapon is controversial. In state and federal gun laws, the term generally refers to specific semiautomatic firearm models that are designed to fire a high volume of ammunition in a controlled way or that have specified design features, such as folding stocks or pistol grips. For further discussion, see Koper (2020) and Klarevas (2019).
- 17. This likely does not apply to felony-related mass shootings, in which the death of the perpetrator is uncommon.
- 18. For recent examples, see Klarevas, Conner, and Hemenway (2019) and Webster et al. (2020).
- 19. The distributional characteristics of mass shooting incidents are such that standard assumptions of asymptotic consistency and normality for the parameter estimates may not hold, thus threating the validity of effect estimates and associated statistical inferences.
- 20. For instance, it is common for studies evaluating the effects of gun policies on the likelihood of a mass shooting occurring to use two-way fixed-effects models that control for year and state fixed effects. In conventional estimation of these models, states that do not experience an incident over the study time frame do not enter the log-likelihood. In some studies of high-fatality mass public shootings, this applies to nearly half of the states in the sample.
- 21. There has also been some debate about the extent to which rates of gunfire attained in incidents of LCM use could be similarly attained with use of non-LCM weapons. For a summary of this discussion, see Koper (2020), p. 165, note 19.

Originally published March 2, 2018

References

- Albert, Adelin, and John A. Anderson, "On the Existence of Maximum Likelihood Estimates in Logistic Regression Models," *Biometrika*, Vol. 71, No. 1, 1984, pp. 1–10.
- Associated Press and USA Today, "Report: 2019 Records 41 Mass Killings in United States," Tucson.com, December 28, 2019.
- Berk, Richard A., and Susan B. Sorenson, "Algorithmic Approach to Forecasting Rare Violent Events: An Illustration Based in Intimate Partner Violence Perpetration," *Criminology and Public Policy*, Vol. 19, No. 1, 2020, pp. 213–233.
- Blair, J. Pete, and Katherine W. Schweit, *A Study of Active Shooter Incidents, 2000–2013*, Washington, D.C.: Texas State University and Federal Bureau of Investigation, U.S. Department of Justice, 2014.
- Blau, Benjamin M., Devon H. Gorry, and Chip Wade, "Guns, Laws, and Public Shootings in the United States," *Applied Economics*, Vol. 48, No. 49, 2016, pp. 4732–4746.
- Booty, Marisa, Jayne O'Dwyer, Daniel Webster, Alex McCourt, and Cassandra Crifasi, "Describing a 'Mass Shooting': The Role of Databases in Understanding Burden," *Injury Epidemiology*, Vol. 6, No. 1, 2019, article 47.

Case: 1:21-cv-04595 Document #: 98-1 Filed: 04/24/23 Page 178 of 304 PageID #:1705

- Bose, Jonaki, Sarra L. Hedden, Rachel N. Lipari, and Eunice Park-Lee, *Key Substance Use and Mental Health Indicators* in the United States: Results from the 2017 National Survey on Drug Use and Health, Rockville, Md.: Substance Abuse and Mental Health Services Administration, September 2018.
- Cabrera, Joseph F., and Roy Kwon, "Income Inequality, Household Income, and Mass Shooting in the United States," *Frontiers in Public Health*, Vol. 6, October 2018, article 294.
- Callahan, Molly, "The Story Behind the Data on Mass Murder in the United States," Northeastern University, August 13, 2019.
- Campbell, Jacquelyn C., Nancy Glass, Phyllis W. Sharps, Kathryn Laughon, and Tina Bloom, "Intimate Partner Homicide: Review and Implications of Research and Policy," *Trauma, Violence, and Abuse*, Vol. 8, No. 3, 2007, pp. 246–269.
- Capellan, Joel Alfredo, and Alexei Anisin, "A Distinction Without a Difference? Examining the Causal Pathways Behind Ideologically Motivated Mass Public Shootings," *Homicide Studies*, Vol. 22, No. 3, 2018, pp. 235–255.
- Capellan, Joel A., and SimonPeter Gomez, "Change and Stability in Offender, Behaviours, and Incident-Level Characteristics of Mass Public Shootings in the United States, 1984–2015," *Journal of Investigative Psychology and Offender Profiling*, Vol. 15, No. 1, 2018, pp. 51–72.
- Capellan, Joel A., and Allan Y. Jiao, *Deconstructing Mass Public Shootings: Exploring Opportunities for Intervention*, Albany, N.Y.: Rockefeller Institute of Government, October 2019.
- Capellan, Joel A., Joseph Johnson, Jeremy R. Porter, and Christine Martin, "Disaggregating Mass Public Shootings: A Comparative Analysis of Disgruntled Employee, School, Ideologically Motivated, and Rampage Shooters," *Journal of Forensic Sciences*, Vol. 64, No. 3, 2019, pp. 814–823.
- Cohen, Amy P., Deborah Azrael, and Matthew Miller, "Rate of Mass Shootings Has Tripled Since 2011, Harvard Research Shows," *Mother Jones*, October 15, 2014.
- Cook, Philip J., and Jens Ludwig, Guns in America: Results of a Comprehensive National Survey on Firearms Ownership and Use, Washington, D.C.: Police Foundation, 1996.
- de Jager, Elzerie, Eric Goralnick, Justin C. McCarty, Zain G. Hashmi, Molly P. Jarman, and Adil H. Haider, "Lethality of Civilian Active Shooter Incidents With and Without Semiautomatic Rifles in the United States," *JAMA*, Vol. 320, No. 10, 2018, pp. 1034–1035.
- Duwe, Grant, "Body-Count Journalism: The Presentation of Mass Murder in the News Media," *Homicide Studies*, Vol. 4, No. 4, 2000, pp. 364–399.
- Duwe, Grant, "The Patterns and Prevalence of Mass Murder in Twentieth-Century America," *Justice Quarterly*, Vol. 21, No. 4, 2004, pp. 729–761.
- Duwe, Grant, "Patterns and Prevalence of Lethal Mass Violence," *Criminology and Public Policy*, Vol. 19, No. 1, 2020, pp. 17–35.
- Duwe, Grant, Tomislav Kovandzic, and Carlisle E. Moody, "The Impact of Right-to-Carry Concealed Firearm Laws on Mass Public Shootings," *Homicide Studies*, Vol. 6, No. 4, 2002, pp. 271–296.
- Elsass, H. Jaymi, Jaclyn Schildkraut, and Mark C. Stafford, "Studying School Shootings: Challenges and Considerations for Research," *American Journal of Criminal Justice*, Vol. 41, No. 3, 2016, pp. 444–464.
- Entman, Robert M., and Kimberly A. Gross, "Race to Judgment: Stereotyping Media and Criminal Defendants," *Law and Contemporary Problems*, Vol. 71, No. 4, 2008, pp. 93–133.
- Everytown for Gun Safety Support Fund, "Mass Shootings in the United States: 2009–2017," December 6, 2018. As of May 15, 2019: http://everytownresearch.org/reports/mass-shootings-analysis/
- Everytown for Gun Safety Support Fund, "Ten Years of Mass Shootings in the United States: An Everytown for Gun Safety Support Fund Analysis," November 21, 2019. As of June 22, 2020: https://everytownresearch.org/massshootingsreports/mass-shootings-in-america-2009-2019/
- FBI—See Federal Bureau of Investigation.

Case: 1:21-cv-04595 Document #: 98-1 Filed: 04/24/23 Page 179 of 304 PageID #:1706

- Federal Bureau of Investigation, *Active Shooter Incidents in the United States in 2016 and 2017*, Washington, D.C.: U.S. Department of Justice, April 2018g.
- Federal Bureau of Investigation, "2018 National Incident-Based Reporting System: Data Tables," webpage, 2019e. As of June 19, 2020: https://ucr.fbi.gov/nibrs/2018/tables/data-tables
- Federal Bureau of Investigation, "Expanded Homicide," webpage, Crime in the United States 2018, 2019f. As of June 19, 2020: https://ucr.fbi.gov/crime-in-the-u.s/2018/crime-in-the-u.s-2018/topic-pages/expanded-homicide
- Federal Bureau of Investigation, *Active Shooter Incidents in the United States in 2018*, Washington, D.C.: U.S. Department of Justice, April 2019g.
- Federal Bureau of Investigation, *Active Shooter Incidents in the United States in 2019*, Washington, D.C.: U.S. Department of Justice, April 2020.
- Follman, Mark, Gavin Aronsen, and Deanna Pan, "US Mass Shootings, 1982–2020: Data from Mother Jones' Investigation," *Mother Jones*, February 26, 2020.
- Fox, James Alan, "Missing Data Problems in the SHR: Imputing Offender and Relationship Characteristics," *Homicide Studies*, Vol. 8, No. 3, 2004, pp. 214–254.
- Fox, James Alan, *Uniform Crime Reports (United States): Supplementary Homicide Reports, 1976–1994*, Boston, Mass.: Northeastern University, College of Criminal Justice, January 18, 2006.
- Fox, James Alan, and Monica J. DeLateur, "Mass Shootings in America: Moving Beyond Newtown," *Homicide Studies*, Vol. 18, No. 1, 2014, pp. 125–145.
- Fox, James A., and Emma E. Fridel, "The Tenuous Connections Involving Mass Shootings, Mental Illness, and Gun Laws," *Violence and Gender*, Vol. 3, No. 1, 2016, pp. 14–19.
- Fox, James Alan, and Jack Levin, "Multiple Homicide: Patterns of Serial and Mass Murder," *Crime and Justice*, Vol. 23, 1998, pp. 407–455.
- Fox, James A., and Jack Levin, Extreme Killing: Understanding Serial and Mass Murder, 3rd ed., Thousand Oaks, Calif.: Sage Publications, 2015.
- Fox, James Alan, and Marc L. Swatt, "Multiple Imputation of the Supplementary Homicide Reports, 1976–2005," *Journal of Quantitative Criminology*, Vol. 25, No. 1, 2009, pp. 51–77.
- Fridel, Emma E., "A Multivariate Comparison of Family, Felony, and Public Mass Murders in the United States," *Journal of Interpersonal Violence*, Vol. 36, No. 3–4, 2017, pp. 1092–1118.
- Gelman, Andrew, and John Carlin, "Beyond Power Calculations: Assessing Type S (Sign) and Type M (Magnitude) Errors," *Perspectives on Psychological Science*, Vol. 9, No. 6, 2014, pp. 641–651.
- Gius, Mark, "The Impact of State and Federal Assault Weapons Bans on Public Mass Shootings," *Applied Economics Letters*, Vol. 22, No. 4, 2015c, pp. 281–284.
- Gu, Jackie, "Deadliest Mass Shootings Are Often Preceded by Violence at Home," Bloomberg News, June 30, 2020.
- Gun Violence Archive, homepage, undated-a. As of June 26, 2020: http://www.gunviolencearchive.org/
- Huff-Corzine, Lin, and Jay Corzine, "The Devil's in the Details: Measuring Mass Violence," *Criminology and Public Policy*, Vol. 19, No. 1, 2020, pp. 317–333.
- Huff-Corzine, Lin, James C. McCutcheon, Jay Corzine, John P. Jarvis, Melissa J. Tetzlaff-Bemiller, Mindy Weller, and Matt Landon, "Shooting for Accuracy: Comparing Data Sources on Mass Murder," *Homicide Studies*, Vol. 18, No. 1, 2014, pp. 105–124.
- Klarevas, Louis, Rampage Nation: Securing America from Mass Shootings, Amherst, N.Y.: Prometheus Books, 2016.
- Klarevas, Louis, "Letter to the Editor Re: DiMaggio, C. et al. 'Changes in US Mass Shooting Deaths Associated with the 1994–2004 Federal Assault Weapons Ban: Analysis of Open-Source Data," *Journal of Trauma and Acute Care Surgery*, Vol. 86, No. 5, 2019, pp. 926–928.
- Klarevas, Louis, Andrew Conner, and David Hemenway, "The Effect of Large-Capacity Magazine Bans on High-Fatality Mass Shootings, 1990–2017," *American Journal of Public Health*, Vol. 109, No. 12, 2019, pp. 1754–1761.

Case: 1:21-cv-04595 Document #: 98-1 Filed: 04/24/23 Page 180 of 304 PageID #:1707

- Kleck, Gary, "Large-Capacity Magazines and the Casualty Counts in Mass Shootings: The Plausibility of Linkages," *Justice Research and Policy*, Vol. 17, No. 1, 2016, pp. 28–47.
- Kleck, Gary, *Do Mass Shooters Favor Using High-Capacity Magazines*, Tallahassee, Fla.: Florida State University, working paper, March 10, 2020.
- Koper, Christopher S., "Assessing the Potential to Reduce Deaths and Injuries from Mass Shootings Through Restrictions on Assault Weapons and Other High-Capacity Semiautomatic Firearms," *Criminology and Public Policy*, Vol. 19, No. 1, 2020, pp. 147–170.
- Koper, Christopher S., William D. Johnson, Jordan L. Nichols, Ambrozine Ayers, and Natalie Mullins, "Criminal Use of Assault Weapons and High-Capacity Semiautomatic Firearms: An Updated Examination of Local and National Sources," *Journal of Urban Health*, Vol. 95, No. 3, 2018, pp. 313–321.
- Krouse, William J., and Daniel J. Richardson, *Mass Murder with Firearms: Incidents and Victims*, 1999–2013, Washington, D.C.: Congressional Research Service, R44126, 2015.
- Kwon, Roy, and Joseph F. Cabrera, "Income Inequality and Mass Shootings in the United States," *BMC Public Health*, Vol. 19, No. 1, 2019a, article 1147.
- Kwon, Roy, and Joseph F. Cabrera, "Social Integration and Mass Shootings in US Counties," *Journal of Crime and Justice*, Vol. 42, No. 2, 2019b, pp. 121–139.
- Kwon, Roy, and Joseph F. Cabrera, "Socioeconomic Factors and Mass Shootings in the United States," *Critical Public Health*, Vol. 29, No. 2, 2019c, pp. 138–145.
- Langman, Peter, "Different Types of Role Model Influence and Fame Seeking Among Mass Killers and Copycat Offenders," *American Behavioral Scientist*, Vol. 62, No. 2, 2018, pp. 210–228.
- Lankford, Adam, "A Comparative Analysis of Suicide Terrorists and Rampage, Workplace, and School Shooters in the United States from 1990 to 2010," *Homicide Studies*, Vol. 17, No. 3, 2013, pp. 255–274.
- Lankford, Adam, "Mass Murderers in the United States: Predictors of Offender Deaths," *Journal of Forensic Psychiatry and Psychology*, Vol. 26, No. 5, 2015, pp. 586–600.
- Lankford, Adam, and James Silver, "Why Have Public Mass Shootings Become More Deadly? Assessing How Perpetrators' Motives and Methods Have Changed over Time," *Criminology and Public Policy*, Vol. 19, No. 1, 2020, pp. 37–60.
- Laqueur, Hannah S., and Garen J. Wintemute, "Identifying High-Risk Firearm Owners to Prevent Mass Violence," *Criminology and Public Policy*, Vol. 19, No. 1, 2020, pp. 109–127.
- Levine, Phillip B., and Robin McKnight, *Not All School Shootings Are the Same and the Differences Matter*, Cambridge, Mass.: National Bureau of Economic Research, Working Paper No. 26728, February 2020.
- Lott, John R., Jr., "The FBI's Misinterpretation of the Change in Mass Public Shootings," *ACJS Today*, Vol. 40, No. 2, 2015, pp. 18–29.
- Lott, John R., Jr., and William Landes, "Multiple Victim Public Shootings," 2000 (unpublished). As of June 29, 2017: http://www.shack.co.nz/pistoltaupo/SSRN_ID272929_code010610560.pdf
- Lowe, Sarah R., and Sandro Galea, "The Mental Health Consequences of Mass Shootings," *Trauma, Violence, and Abuse*, Vol. 18, No. 1, 2017, pp. 62–82.
- Luca, Michael, Deepak Malhotra, and Christopher Poliquin, "The Impact of Mass Shootings on Gun Policy," *Journal of Public Economics*, Vol. 181, January 2020.
- Mass Shooting Tracker, homepage, undated. As of June 3, 2020: https://www.massshootingtracker.org
- McGinty, Emma E., Alene Kennedy-Hendricks, Seema Choksy, and Colleen L. Barry, "Trends in News Media Coverage of Mental Illness in the United States: 1995–2014," *Health Affairs*, Vol. 35, No. 6, 2016, pp. 1121–1129.
- McGinty, E. E., D. W. Webster, M. Jarlenski, and C. L. Barry, "News Media Framing of Serious Mental Illness and Gun Violence in the United States," *American Journal of Public Health*, Vol. 104, No. 3, 2014, pp. 406–413.

Case: 1:21-cv-04595 Document #: 98-1 Filed: 04/24/23 Page 181 of 304 PageID #:1708

- Moreno-Küstner, Berta, Carlos Martín, and Loly Pastor, "Prevalence of Psychotic Disorders and Its Association with Methodological Issues: A Systematic Review and Meta-Analyses," *PLoS One*, Vol. 13, No. 4, 2018.
- Newman, Benjamin J., and Todd K. Hartman, "Mass Shootings and Public Support for Gun Control," *British Journal of Political Science*, Vol. 49, No. 4, 2019, pp. 1527–1553.
- Park, Sung-Yeon, Kyle J. Holody, and Xiaoqun Zhang, "Race in Media Coverage of School Shootings: A Parallel Application of Framing Theory and Attribute Agenda Setting," *Journalism and Mass Communication Quarterly*, Vol. 89, No. 3, 2012, pp. 475–494.
- Parker, George F., "Circumstances and Outcomes of a Firearm Seizure Law: Marion County, Indiana, 2006–2013," *Behavioral Sciences and the Law*, Vol. 33, No. 2-3, 2015, pp. 308–322.
- Pizarro, Jesenia M., and April M. Zeoli, "An Assessment of the Quality of Homicide Data in the Supplementary Homicide Reports: A Research Note," *Justice Quarterly*, Vol. 30, No. 4, 2013, pp. 711–731.
- Public Law 112-265, Investigative Assistance for Violent Crimes Act of 2012, January 14, 2013.
- Puzzanchera, C., G. Chamberlin, and W. Kang, "Easy Access to the FBI's Supplementary Homicide Reports: 1980–2016," Office of Juvenile Justice and Delinquency Prevention, 2018.
- Reaves, Brian A., *Using NIBRS Data to Analyze Violent Crime*, Washington, D.C.: Bureau of Justice Statistics, October 1993.
- Ressler, Robert K., Ann W. Burgess, and John E. Douglas, *Sexual Homicide: Patterns and Motives*, New York: Simon and Schuster, 1988.
- Roberts, John M., Jr., Aki Roberts, and Tim Wadsworth, "Multiple Imputation for Missing Values in Homicide Incident Data: An Evaluation Using Unique Test Data," *Homicide Studies*, Vol. 22, No. 4, 2018, pp. 391–409.
- Roeder, Oliver, "The Phrase 'Mass Shooting' Belongs to the 21st Century," FiveThirtyEight, January 21, 2016.
- Sanders, Nathan E., and Victor Lei, "The Role of Prior Information in Inference on the Annualized Rates of Mass Shootings in the United States," *Statistics and Public Policy*, Vol. 5, No. 1, 2018, pp. 1–8.
- Schildkraut, Jaclyn, H. Jaymi Elsass, and Kimberly Meredith, "Mass Shootings and the Media: Why All Events Are Not Created Equal," *Journal of Crime and Justice*, Vol. 41, No. 3, 2018, pp. 223–243.
- Silva, Jason R., and Joel A. Capellan, "A Comparative Analysis of Media Coverage of Mass Public Shootings: Examining Rampage, Disgruntled Employee, School, and Lone-Wolf Terrorist Shootings in the United States," *Criminal Justice Policy Review*, Vol. 30, No. 9, 2019a, pp. 1312–1341.
- Silva, Jason R., and Joel A. Capellan, "The Media's Coverage of Mass Public Shootings in America: Fifty Years of Newsworthiness," *International Journal of Comparative and Applied Criminal Justice*, Vol. 43, No. 1, 2019b, pp. 77–97.
- Silver, James, William Fisher, and John Horgan, "Public Mass Murderers and Federal Mental Health Background Checks," *Law and Policy*, Vol. 40, No. 2, 2018, pp. 133–147.
- Silver, James, Andre Simons, and Sarah Craun, A Study of the Pre-Attack Behaviors of Active Shooters in the United States Between 2000 and 2013, Washington, D.C.: Federal Bureau of Investigation, June 2018.
- Skeem, Jennifer, and Edward Mulvey, "What Role Does Serious Mental Illness Play in Mass Shootings, and How Should We Address It?" *Criminology and Public Policy*, Vol. 19, No. 1, 2020, pp. 85–108.
- Stanford Geospatial Center, "Mass Shootings in America," Stanford, Calif.: Stanford University Libraries, undated. As of June 3, 2020: https://library.stanford.edu/projects/mass-shootings-america
- Stanford Geospatial Center, "MSA," GitHub data repository, March 26, 2018. As of December 11, 2020: https://github.com/StanfordGeospatialCenter/MSA
- Stone, Michael H., "Mass Murder, Mental Illness, and Men," Violence and Gender, Vol. 2, No. 1, 2015, pp. 51-86.
- Swanson, Jeffrey W., Michele M. Easter, Kelly Alanis-Hirsch, Charles M. Belden, Michael A. Norko, Allison G. Robertson, Linda K. Frisman, Hsiu-Ju Lin, Marvin S. Swartz, and George F. Parker, "Criminal Justice and Suicide Outcomes with Indiana's Risk-Based Gun Seizure Law," *Journal of the American Academy of Psychiatry and the Law*, Vol. 47, No. 2, 2019, pp. 1–10.

Case: 1:21-cv-04595 Document #: 98-1 Filed: 04/24/23 Page 182 of 304 PageID #:1709

- Swanson, Jeffrey W., Michael A. Norko, Hsiu-Ju Lin, Kelly Alanis-Hirsch, Linda K. Frisman, Madelon V. Baranoski, Michele M. Easter, Allison G. Robertson, Marvin S. Swartz, and Richard J. Bonnie, "Implementation and Effectiveness of Connecticut's Risk-Based Gun Removal Law: Does It Prevent Suicides?" *Law and Contemporary Problems*, Vol. 80, No. 2, 2017, pp. 179–208.
- Taylor, Melanie A., "A Comprehensive Study of Mass Murder Precipitants and Motivations of Offenders," *International Journal of Offender Therapy and Comparative Criminology*, Vol. 62, No. 2, 2018, pp. 427–449.
- U.S. Census Bureau, "National Population by Characteristics: 2010–2019," web tool, June 17, 2020. As of June 20, 2020: https://www.census.gov/data/tables/time-series/demo/popest/2010s-national-detail.html
- U.S. Department of Homeland Security, Active Shooter: How to Respond, Washington, D.C., October 2008.
- The Violence Project, "Mass Shooter Database," web tool, undated. As of June 8, 2020: https://www.theviolenceproject.org/mass-shooter-database/
- Wadsworth, Tim, and John M. Roberts, Jr., "When Missing Data Are Not Missing: A New Approach to Evaluating Supplemental Homicide Report Imputation Strategies," *Criminology*, Vol. 46, No. 4, 2008, pp. 841–870.
- Webster, Daniel W., Alexander D. McCourt, Cassandra K. Crifasi, Marisa D. Booty, and Elizabeth A. Stuart, "Evidence Concerning the Regulation of Firearms Design, Sale, and Carrying on Fatal Mass Shootings in the United States," *Criminology and Public Policy*, Vol. 19, No. 1, 2020, pp. 171–212.
- Wintemute, Garen J., Veronica A. Pear, Julia P. Schleimer, Rocco Pallin, Sydney Sohl, Nicole Kravitz-Wirtz, and Elizabeth A. Tomsich, "Extreme Risk Protection Orders Intended to Prevent Mass Shootings: A Case Series," *Annals of Internal Medicine*, August 2019.
- Xue, Xiaonan, Mimi Y. Kim, Tao Wang, Mark H. Kuniholm, and Howard D. Strickler, "A Statistical Method for Studying Correlated Rare Events and Their Risk Factors," *Statistical Methods in Medical Research*, Vol. 26, No. 3, 2017, pp. 1416–1428.
- Zeoli, April M., and Jennifer K. Paruk, "Potential to Prevent Mass Shootings Through Domestic Violence Firearm Restrictions," *Criminology and Public Policy*, Vol. 19, No. 1, 2020, pp. 129–145.

View the full project bibliography

Citation

Rosanna Smart and Terry L. Schell, "Mass Shootings in the United States," in Rajeev Ramchand and Jessica Saunders, eds., *Contemporary Issues in Gun Policy: Essays from the RAND Gun Policy in America Project*, Santa Monica, Calif.: RAND Corporation, RR-A243-2, 2021, pp. 1–25. As of April 15, 2021: https://www.rand.org/pubs/research_reports/RRA243-2.html

Featured Researcher

Rosanna Smart

Codirector, RAND Drug Policy Research Center



Rosanna Smart is an economist at the RAND Corporation, codirector of the RAND Drug Policy Research Center, and affiliate faculty of the Pardee RAND Graduate School. Her research is in applied microeconomics, with a focus on issues related to health behaviors, illicit markets, drug policy, and...

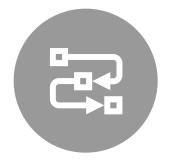
EXPLORE RELATED CONTENT



Gun Policy Expert-Opinion Tool



Gun Policy Research Review



Research Review Methodology

RAND® is a registered trademark. © 1994-2023 RAND Corporation.

EXHIBIT 6

NSSF® FAST FACTS

BACKGROUND INFORMATION ON SO-CALLED "ASSAULT WEAPONS"

The term "Assault Weapon". coined in the 1980's in an effort to ban semiautomatic rifles, has arguably become one of the most successful antigun public relations tools in modern history. The term "assault weapon" is now broadly used by antiqun activists to describe any and all semiautomatic firearms as taboo and undesirable for private civilian ownership, despite being legally owned and used by millions of Americans. Antigun politicians and misinformed media have perpetuated this erroneous moniker for decades to drive public opinion of semiautomatic firearms into the gutter. As a result, many think that a semiautomatic firearm is a socalled "assault weapon" based on its cosmetic features or assume that the firearm is in fact a fully automatic machine gun.

What has incorrectly been termed an "assault weapon" is a semi-automatic firearm that fires just one bullet with each pull of the trigger (versus a fully automatic firearm — machine gun — which continues to shoot until the trigger is released). Specifically, legislation has incorrectly defined an "assault weapon" as a semi-automatic firearm that can accept a detachable magazine and has one or more of the following cosmetic features (it is these cosmetic features that





"The public's confusion over fully-automatic machine guns versus semi-automatic assault weapons — anything that looks like a machine gun is presumed to be a machine gun — can only increase the chance of public support for restrictions on these weapons."

distinguish the firearm from other "non-assault weapons."):

- A folding or telescoping stock
- · A pistol grip
- · A bayonet mount
- A flash suppressor, or threads to attach one
- · A grenade launcher

None of these features figure into the criminal misuse of firearms, regardless of their appearance.

SEPARATING FACT FROM FICTION

There is a tremendous amount of misinformation surrounding the issue of so-called "assault weapons." Below are several of the more misleading allegations related to these firearms followed by corresponding statements of fact:

Claim: A commercially-sold "assault weapon" is a machine gun and has no place in civilian hands.

Fact: A so-called "assault weapon" is NOT a machine gun or automatic firearm. Automatic firearms were

severely restricted from civilian ownership under the 1934 National Firearms Act. A so-called "assault weapon" is functionally no different than any other "legal" firearm. These guns fire in the same manner as any other semi-automatic firearm (one shot per trigger pull — no spray firing), they shoot the same ammunition as other guns of the same caliber and are no more powerful. What differentiates a socalled "assault weapon" from other guns is cosmetic; for example, the type of stock on the gun, which makes the conventionally operating firearm look more like a military firearm.

The gun-ban lobby understands that the confusion over what is and what is not an "assault weapon" only benefits them. Consider this statement from Josh Sugarmann of the Violence Policy Center:

"The public's confusion over fully-automatic machine guns versus

continued ----



Case: 1:21-cv-04595 Document #: 98-1 Filed: 04/24/23 Page 186 of 304 PageID #:1713

semi-automatic assault weapons — anything that looks like a machine gun is presumed to be a machine gun — can only increase the chance of public support for restrictions on these weapons."

Claim: Semi-automatic "assault weapons" are high-powered guns that are meant for war.

Fact: So-called "assault weapons" are more often than not less powerful than other hunting rifles. The term "assault weapon" was conjured up by anti-gun legislators to scare voters into thinking these firearms are something out of a horror movie. These guns are used for many activities. In fact, the Colt AR-15 and Springfield M1A, both labeled "assault weapons," are the rifles most often used for marksmanship competitions in the United States. And their cartridges are standard hunting calibers, useful for game up to and including deer.

Claim: The 1994 "assault weapons ban" helped to reduce violent crime.

Fact: A recent comprehensive study by the Centers for Disease

Control — hardly a pro-gun entity — looked at the full panoply of gun control measures — including the "assault weapons ban" — and concluded that none could be proven to reduce crime. Homicide statistics demonstrate that the miniscule use of so-called "assault weapons" in crime (less than 1 percent) continued to decrease after the ten-year ban expired in 2004 and their manufacturing and sales resumed.

Another study, commissioned by Congress, found "the banned weapons and magazines were never used in more than a modest fraction of all gun murders."

The report also noted that so-called "assault weapons" were "rarely used in gun crimes even before the ban."

CONCLUSION

Legislation to ban so-called "assault weapons" typically targets rifles that are in common use and rarely used in crime. According to the 2019 FBI Uniform Crime Report, from 2015 – 2019: Knives, Blunt Objects, and Personal Weapons (fists and feet) exceeded rifles of all kinds for cause of death every year."

Semiautomatic pistols, the

firearm of choice for conceal carry licensees, have recently garnered attention from antigun lawmakers, as evidenced by their inclusion under the "assault weapon" umbrella in legislation. This practice is becoming more commonplace as the efforts to conceal true intentions of banning all privately owned firearms are diminished. Banning all semiautomatic firearms is now the goal of the antigun lobby who know that the common criminal will not be affected by such bans and legislation. Labeling every semiautomatic firearm as an "assault weapon" plays on the emotional response of the public who may not be educated on how firearms work and their everyday use by law abiding citizens seeking to defend themselves and their families. Legislation to curb crime should be the priority, not laws that will only disarm and endanger those who follow the rules. Semiautomatic firearms are the most common type of firearm in the United States and are used for a wide variety of legitimate purposes, including hunting, small game control, target shooting, competition, and personal defense.

They should not be banned.



ⁱ https://www.ojp.gov/pdffiles1/nij/grants/204431.pdf

 $^{^{\}text{iii}} \ \underline{\text{https://ucr.fbi.gov/crime-in-the-u.s/2019/crime-in-the-u.s.-2019/tables/expanded-homicide-data-table-8.xls}$

EXHIBIT 7

FM 3-22.9

RIFLE MARKSMANSHIP M16-/M4-SERIES WEAPONS



August 2008

DISTRIBUTION RESTRICTION: Approved for public release; distribution is unlimited.

HEADQUARTERS DEPARTMENT OF THE ARMY

This publication is available at Army Knowledge Online (www.us.army.mil) and General Dennis J. Reimer Training and Doctrine Digital Library at (www.train.army.mil).

Chapter 2

Weapon Characteristics, Accessories, and Ammunition

This chapter describes the general components, characteristics, accessories, and ammunition for M16- and M4-series weapons, and includes a brief explanation of how to mount the various accessories.

SECTION I. RIFLES AND CARBINES

All M16-/M4-series weapons are magazine-fed, gas-operated, air-cooled, shoulder-fired 5.56-millimeter weapons. This section describes the general characteristics and components of M16-/M4-series weapons.

CHARACTERISTICS OF M16-/M4-SERIES WEAPONS

2-1. Table 2-1 describes the general characteristics of M16-/M4-series weapons.

Table 2-1. Characteristics of M16-/M4-series weapons.

| CHARACTERISTICS | M4-SERIES | M16A2/A3 | M16A4 | M16A1 |
|---------------------------------------|---------------|------------|-------|---------|
| WEIGHT (lb) | | | | |
| Without magazine and sling | 6.49 | 7.78 | 9.08 | 6.35 |
| With sling and loaded: | | | | |
| 20-round magazine | 7.19 | 8.48 | 9.78 | 6.75 |
| 30-round magazine | 7.50 | 8.79 | 10.09 | 8.06 |
| Bayonet knife, M9 | 1.50 | 1.50 | 1.50 | 1.50 |
| Scabbard | 0.30 | 0.30 | 0.30 | 0.30 |
| Sling, M1 | 0.40 | 0.40 | 0.40 | 0.40 |
| LENGTH (in) | | | | |
| Rifle w/bayonet knife | N/A | 44.88 | 44.88 | 44.25 |
| Overall rifle length | N/A | 39.63 | 39.63 | 39.00 |
| Buttstock closed | 29.75 | N/A | N/A | N/A |
| Buttstock open | 33.0 | N/A | N/A | N/A |
| OPERATIONAL CHARACTERISTICS | | | | |
| Barrel rifling-righthand 1 twist (in) | 7 | 7 | 7 | 12 |
| Muzzle velocity (fps) | 2,970 | 3,100 | 3,100 | 3,250 |
| Cyclic rate of fire (rounds per min) | 700-900 | 700-900 | 800 | 700-800 |
| MAXIMUM EFFECTIVE RATE OF FIRE (ro | unds per min) | | | |
| Semiautomatic | 45 | 45 | 45 | 45-65 |
| 3-round burst | 90 | 90 (A2) | 90 | N/A |
| Automatic | 150-200 A1 | 150-200 A3 | N/A | 150-200 |
| Sustained | 12-15 | 12-15 | 12-15 | 12-15 |
| RANGE (m) | | | | |
| Maximum range | 3,600 | 3,600 | 3,600 | 2,653 |
| Maximum effective range: | | | | |
| Point target | 500 | 550 | 550 | 460 |
| Area target | 600 | 800 | 600 | N/A |

EXHIBIT 8

20 J. Contemp. L. 381

Journal of Contemporary Law 1994

David B. Kopel^a

Copyright (c) 1994 Journal of Contemporary Law; David B. Kopel

RATIONAL BASIS ANALYSIS OF "ASSAULT WEAPON" PROHIBITION

I. Introduction

One evening, a gang brawl broke out in the street next to the northwest Denver home of a young woman named Sharon Deatherage. A police car happened upon the scene, and sped away without taking any action, never to return. As a result of this experience, the young woman, who lived alone, decided that she would have to take measures to protect herself because she could not rely on the Denver City government for protection. Because of an injury to her wrist, she was unable to use a handgun. At the suggestion of a firearms instructor, she bought an M-1 carbine, which is a relatively small, low-powered semiautomatic rifle, and which has been commercially available for nearly half a century. Not long after she bought the weapon, the City of Denver turned Ms. Deatherage into a criminal by declaring her M-1 carbine and its attached 30-round ammunition magazine an illegal "assault weapon."

Three states--California, New Jersey, and Connecticut⁴--have enacted "assault weapon" prohibitions, as have over two dozen cities or counties. At the federal level, the Bureau of Alcohol, Tobacco and Firearms has used its authority over the import of "non-sporting" weapons to impose a 1989 import ban on certain rifles, and a 1993 import ban on certain pistols. As of August 1994, Congress had not enacted a comprehensive federal "assault weapon" prohibition. The Congressional *382 prohibition is the "Feinstein Amendment," which outlaws 184 "assault weapons."

Scholarly legal analysis of the "assault weapon" issue consistently puts "assault weapon" prohibition in the context of "gun control." Scholars have asked whether outlawing "assault weapons" would violate either the right to arms guarantee of the Second Amendment to the United States Constitution, ⁷ a state constitutional right to arms, ⁸ or the militia clauses of the United States Constitution. ⁹ Although such scholarship has been valuable, this Article suggests that the first, and perhaps dispositive, question in analyzing "assault weapon" prohibition is whether such legislation passes the rational basis test.

Employing the rational basis test, before analyzing the of right to bear arms provisions, is useful for several reasons. For example, the Second Amendment is of limited use in analyzing prohibitions enacted by states or subdivisions of states. Despite some recent Supreme Court dicta suggesting that the individual right to keep and bear arms is incorporated in the Fourteenth Amendment, ¹⁰ federal courts have been unwilling to apply the Second Amendment to non-federal action. ¹¹ Further, forty-three states have their own state constitutional right to bear arms. In all of these states, except Massachusetts, the right is considered to inhere in individuals, rather than the state government. ¹² But seven states, including California and New Jersey, do not *383 have a state constitutional right to bear arms. And even in states that do have a constitutional right, right to arms jurisprudence is not as fully developed as, for example, free speech or search and seizure jurisprudence. Thus, use of a right to arms guarantee to test the Constitutionality of "assault weapon" prohibition will involve the judiciary analyzing a Constitutional right with which many judges have little prior professional experience. In contrast, almost every judge with Constitutional law experience will have some familiarity with a rational basis analysis. To the extent that a right to bear arms analysis does become necessary, analysis of "assault weapon" prohibition under the rational basis test can help clarify the issues relevant to the right to arms.

This Article begins in Part II, with a brief summary of rational basis jurisprudence. Next, Part III applies the rational basis test to various characteristics that are said to distinguish "assault weapons" from other firearms. These characteristics include the weapons' rate of fire, ammunition capacity, ammunition lethality, design history, and the presence of features such as a folding stock and a barrel thread for a muzzle brake, or a bayonet lug. In Part IV, the article examines another basis for treating "assault weapons" differently from other weapons—the frequency with which "assault weapons" are used in crime. Finally, this Article discusses the rationality of a prohibition on firearms based on their suitability for sports.

II. Taking Rational Basis Seriously

When legislation impinges on fundamental constitutional rights, judicial review of the legislation employs the "strict scrutiny" test. The legislation is declared constitutional only if the legislation is "narrowly tailored" to achieve a "compelling state interest," and there is no "less restrictive means" to achieve the same goal. In contrast, legislation which does not involve fundamental rights is usually reviewed under the "rational basis" standard; the court will not declare the law unconstitutional unless the court finds that the law lacks a rational basis.

This Article is based on the controversial presumption that the rational basis test actually matters. This presumption has clearly been false during most of the decades since the rational basis test was created. Many courts have treated the rational basis test as little more than a requirement that the law in question be defended by a government *384 attorney who communicates in English and makes at least the attempt to provide a rationale for the law. In the days of the common law of contracts, it was said that "a peppercorn would suffice" to provide consideration. Many courts have been willing to find that a peppercorn's worth of argument will suffice for a law to pass the rational basis test. ¹³

However, such is not necessarily, the proper application of the rational basis test. In recent years, the United States Supreme Court has sometimes applied the test seriously. ¹⁴ As the court announced in 1976, the rational basis test "is not a toothless one." ¹⁵ Since then, the Court has repeatedly used rational basis to strike down laws which the Court found to involve irrational discrimination, even though there was no protected class or specific constitutional right involved. ¹⁶

Of particular significance is the case of Cleburne v. Cleburne Living Center, ¹⁷ a case which illustrates some of the analytic techniques a court may use in rejecting purported rational bases of a law. The city of Cleburne had denied a special use zoning permit to a home for the mentally retarded. The Supreme Court overturned the holding of the lower federal court, and held that the mentally retarded were not a suspect or quasi-suspect class. Accordingly, the rational basis test was appropriate. In applying the rational basis test, the Court carefully examined each of the city's three stated justifications for its decision. One basis-fears of local residents--was found to be illegitimate. The Court found another basis--the building's location in a floodplain-was inconsistent with other city actions that had allowed other group care homes to be built in floodplains. Further, the Court found that the city *385 had insufficiently demonstrated its concern that the home would be overcrowded. Accordingly, the Court found that the statute violated the Equal Protection Clause.

The Court's willingness to declare every one of the government's purported rationales to be illegitimate, inconsistent, or insufficiently demonstrated suggests a new vigor in application of the rational basis test. The Cleburne decision also suggests three prongs for rational basis analysis: Illegitimacy, inconsistency, and insufficient demonstration. Although these three prongs are not necessarily the only reasons that a statute may fail the rational basis test, the three Cleburne prongs do suggest a framework for analyzing bases asserted to justify governmental actions. This Article, by employing the Cleburne framework, attempts in a small way to advance the analytic systemization and rigor of rational basis analysis.

Under state constitutions, state courts have sometimes forcefully applied their own state's version of the rational basis test. ¹⁹ Under many state constitutions, it is no innovation for legislation to be declared unconstitutional after rational basis review. ²⁰

While the rational basis test does not impose the very high burdens associated with the strict scrutiny test--such as the shifting of the burden of proof to the government and the requirement that the legislation be "necessarily" related to a "compelling" government interest--the rational basis test, if taken seriously, does not give the government a free ride.

It is true that, even after Cleburne, many courts consider a law's enactment to be tantamount to proof of its rationality. But, unless Cleburne and other Supreme Court rational basis cases from recent years are to be ignored, the rational basis should be taken seriously.

*386 III. Inconsistent: Prohibition Based on the Characteristics of "Assault Weapons"

"Assault weapons" are said by gun prohibition advocates to possess certain unique features which render them far more dangerous than other firearms. This Part examines each of the various physical characteristics said to be unique to "assault weapons," and analyzes whether any of them creates a classification that can survive meaningful rational basis scrutiny.

At this point, it should be stated that this Article will not discuss assault rifles. As the United States Defense Department's Defense Intelligence Agency book Small Arms Identification and Operation Guide explains, "assault rifles" are "short, compact, selective-fire weapons that fire a cartridge intermediate in power between submachine gun and rifle cartridges." In other words, assault rifles are battlefield rifles which can fire automatically. 22

Weapons capable of fully automatic fire, including assault rifles, have been regulated heavily in the United States since the National Firearms Act of 1934.²³ Taking possession of such weapons requires paying a \$200 federal transfer tax and submitting to an FBI background check, including ten-print fingerprints.²⁴

Many civilians have purchased semiautomatic-only rifles that look like military assault rifles. These civilian rifles are, unlike actual assault rifles, incapable of automatic fire. For example, the AK-47 is an assault rifle formerly used by the Russian military, which now uses the AKM-74. Only a few hundred AK-47 firearms have been imported into the United States. On the other hand, tens of thousands of AKS *387 firearms (a Chinese semiautomatic rifle which looks like the AK-47, but cannot fire automatically) have been imported into the United States and sold to civilians. Similarly, the semiautomatic Colt Sporter rifle, of which tens of thousands have been sold, looks like the automatic U.S. Army M-16 assault rifle. "Assault weapon" legislation involves semiautomatic firearms, like the AKS and the Colt Sporter, but not automatic firearms, like the AK-47 or the M-16.

Other firearms manufacturers produce guns that do not look like an assault rifle, but that have a military appearance that some people find repugnant. Such guns typically have black plastic components, in contrast to the brown wood components found on more familiar firearms. The Calico M-900 carbine is an example of a gun which, although not related in design to any military firearm, has a military appearance. The TEC-9 handgun, not resembling a military gun, also has futuristic styling. Guns such as the Calico and the TEC-9 with futuristic styling are also singled out for prohibition by "assault weapon" legislation.

While the Defense Intelligence Agency's term of art "assault rifle" has a precise and technical meaning, the phrase "assault weapon" has a less certain meaning. No "assault rifle" (by Defense Intelligence Agency definition) is an "assault weapon" because all "assault rifles" are automatic, while no "assault weapons" are automatic. ²⁶ "Assault rifles" are used by the military, whereas no "assault weapon" is used by the military. ²⁷ "Assault rifles" are all rifles, but "assault weapons" include semiautomatic rifles, semiautomatic shotguns, revolver-action shotguns, semiautomatic handguns, and semiautomatic airguns.

Not surprisingly, attempted legislative definitions of "assault weapons" have varied widely. Some definitions are simply a list of guns. ²⁸ Other definitions may involve a set of various characteristics. Still others may involve a list and a set of characteristics. ²⁹ The discussion below examines the various purported characteristics of *388 "assault weapons."

A. Rate of Fire

Foremost among the features which are said to make "assault weapons" different from other firearms is their "high rate of fire." If "assault weapons" were actually automatic firearms, such as machine guns, then the claim would clearly be true. With an automatic weapon, if the shooter squeezes and holds the trigger, bullets will fire automatically and rapidly until the trigger is released.

Semiautomatic firearms, however, are by definition not automatic. With a semiautomatic, pressing the trigger fires one, and only one bullet. ³² To fire another bullet, the shooter must release the trigger, and then press it again. Thus, a semiautomatic can shoot only as fast as a person can squeeze the trigger. So, although gun prohibition advocates sometimes use the catchphrase "spray-fire," a semiautomatic firearm, unlike a machine gun, cannot "spray fire," because the shooter must press the trigger for each shot.

The "semi" in "semiautomatic" comes from the fact that the energy created by the explosion of gunpowder, used to force the bullet down the barrel, is diverted away from the shooter. The energy is directed forward, and is used to reload the next cartridge into the firing chamber. Thus, in semiautomatic action firearms the shooter does not need to perform an additional step, such as cocking a lever ("lever action") or operating a slide ("slide action"), in order to load the next round. Although a semiautomatic firearm does not require a separate *389 step to load the next round into the firing chamber, the semiautomatic is not unique in this regard. In a revolver or a double-barreled shotgun or rifle, the shooter can also fire the next shot as fast he can squeeze the trigger.

How does the actual rate of fire of a semiautomatic compare to the rate of other guns? The Winchester Model 12 pump action shotgun can fire six "00 buckshot" shells, each containing twelve .33 caliber pellets, in three seconds. Each of the pellets is larger than the bullet fired by an AKS. In other words, the Winchester Model 12 pump action shotgun can, in three seconds, unleash seventy-two separate projectiles, each capable of causing injury or death. The Remington Model 1100 shotgun (which is a common duck-hunting gun) fires semiautomatically and is not usually labeled an "assault weapon." It can unleash the same seventy-two projectiles in 2.5 seconds. In contrast, an AKS would take about a minute to fire forty aimed shots, or perhaps twice that many without aiming and the AKS rounds would be slightly smaller than the pellets from the Winchester or Remington. Similarly, an old-fashioned .357 revolver can fire six shots in as little as two seconds.

If one tests a firearm under highly artificial conditions--such as bolting the gun to heavy platform and squeezing the trigger by jerking one's arm back and forth--a semiautomatic will "cycle" slightly faster than other firearms. But the only meaningful rate of fire for a weapon is how fast a person, shooting at actual targets, can hit those targets. In terms of actually hitting a target, a study conducted by the United States Navy Seals is revealing. According to the Navy study, at close *390 range, a bolt-action gun³⁴ cycles only one-tenth of a second slower than a semiautomatic; at longer ranges, the cyclic rate is the same for both types of guns. The Navy studies also confirmed something that most gun-owners understand--but something which persons whose familiarity with weapons is limited to "Rambo" movies do not--shooters who fire without aiming virtually never hit their target. It is nearly impossible for even trained shooters to fire on target at much faster than one shot per second.³⁵

Because, under highly artificial conditions, a semiautomatic can be shown to fire slightly faster than other guns, a prohibition of all semiautomatics might pass a lenient version of the rational basis test. Under this test, any distinction, no matter how slight or meaningless, would be held sufficient. Most "assault weapon" legislation, however, cannot clear even this low hurdle, at least in regard to rate of fire. The legislation almost always bans some, but not all, semiautomatics. All semiautomatics have one of three types of action design--recoil- operated, blowback, or gas operated³⁶--and the guns typically selected for prohibition are not exclusively of one type or another. Thus, some semiautomatics are prohibited because of their alleged high rate of fire, while other semiautomatics, with an identical rate of fire, are not prohibited. Accordingly, "rate of fire," standing alone, provides no

more than a shred of a rational basis for prohibiting all semiautomatics, and provides no rational basis at all for banning only some semiautomatics.

B. Magazine Capacity

A second feature, supposedly unique to "assault weapons," is their high ammunition capacity.³⁷ In fact, most semiautomatic firearms, both banned and nonbanned, store their ammunition in detachable boxes or tubes called "magazines." The number of rounds a gun can fire without reloading depends on the size of magazine, an interchangeable, removable part that can be purchased separately. Thus, ammunition *391 capacity has nothing to do with the gun itself. The magazine, not the gun, is the variable. Any gun that accepts detachable magazines can accept a magazine of any size.³⁸

It follows that the rational way to ban guns based on potential large ammunition capacity would be to outlaw all guns which can accept detachable magazines. Alternatively, a rational ban might apply only to guns in which large capacity magazines (however one defines "large") are actually inserted. Another approach to controlling ammunition capacity would be to regulate or outlaw magazines that hold more than a certain number of rounds. Such proposals have been made by former President Bush (fifteen rounds), ³⁹ Senator Diane Feinstein (ten rounds), ⁴⁰ and the lobby Handgun Control, Inc. (six rounds). ⁴¹ This prohibition is at least minimally rational.

Whether such regulation would pass a rationality test is, however, debatable. Changing a magazine takes only a second or two. ⁴² A person simply hits the magazine release button and the empty magazine falls to the ground. A new magazine is then inserted. In one firearms demonstration, a police shooter emptied a thirty round magazine attached to a banned Colt rifle in 5.9 seconds. The officer then fired a fifteen round magazine attached to an unbanned Glock pistol, changed magazines (2.25 seconds), and then fired another 15 rounds. The same thirty rounds were fired by the Glock in 8.92 seconds. ⁴³ Does the difference between six and nine seconds to fire thirty shots constitute "a real and substantial" difference?

Certainly not in the Stockton, California schoolyard where mass murderer Patrick Purdy killed five children, and wounded twenty-nine in January 1989. Using a Chinese semiautomatic rifle with large capacity magazines, Purdy fired approximately 110 rounds in four to six minutes. The rate of fire could be duplicated by virtually every gun currently manufactured. Even including time for reloading, a simple *392 revolver or a bolt-action hunting rifle can easily fire that fast. 44

C. Conversion to Full Automatic

One of the most widely-asserted claims about semiautomatic "assault weapons" is that they can easily be converted into fully automatic weapons. According to the Bureau of Alcohol, Tobacco and Firearms (BATF), all so-called "assault weapons" are "difficult to convert to automatic fire." The conversion requires several hours work by a skilled gunsmith willing to commit a major felony. The *393 gunsmith must also have access to expensive equipment, such as precision lathes. The origin of the easy convertability myth may lie with the semiautomatic M10 pistol. Versions of the pistol built during the early 1980s were easy to convert, requiring no technical skill and only five minutes of work. The BATF, using administrative authority, classified those early M10s as machine guns, requiring a federal license for possession. Subsequent models of the M10 have been produced without the easy convertability.

D. Lethality of Ammunition

"Assault weapons" are also said to fire "high-power" or "high-velocity" bullets which are unusually destructive. Elementary ballistics show this claim to be false.

As detailed above, ammunition for genuine assault rifles (battlefield weapons such as the AK-47 or M-16) is classified as being "intermediate" in power. The ammunition for semiautomatic rifles which look like, but do not fire like, automatic rifles is the same. This ammunition uses bullets which weigh the same or less than bullets used for big-game hunting. For example, a 9mm bullet, used in the Uzi pistol, weighs between 88 and 147 grains (depending on the manufacturer and model); a 7.62 x 39 bullet, used in Kalashnikov rifles, weighs 110 to 125 grains; while the bullet for the popular 30-06 hunting rifle ranges from 55 to 250 grains (twenty-one of the twenty-two bullet types for the 30-06 are 100 grains or above); the bullet for the ubiquitous Colt .45 pistol weighs 185 to 230 grains; and bullets for the 458 Winchester magnum weigh between 300 and 510 grains. 48

One of the reasons that the ammunition for the military-style rifle is smaller, and hence less powerful, is that it was created for soldiers who would have to carry large quantities of ammunition over long distances. ⁴⁹ In contrast, standard hunting ammunition can be heavier, because a hunter will carry only a few rounds on a trip that is usually completed in a single day, or at most a few days.

The second major factor in the force of a bullet's impact is its velocity. Other things being equal, a bullet traveling at high velocity *394 will be more destructive than a bullet traveling at lower velocity. The muzzle velocities for the ammunition types listed above are: For the 9mm, between 975 and 1,500 feet per second (fps); for the 7.62 x 39, from 2,100 to 2,500 fps; for the 30-06, from 2,100 to 4,080 fps; for the Colt pistol, 770 to 1140 fps; and for the 458 Winchester magnum, from 2,100 to 2,500 fps. ⁵⁰

A bullet's power to damage its target depends mainly on the kinetic energy delivered by the bullet. Kinetic energy is produced by the combination of bullet weight and velocity.⁵¹ A typical 7.62 x 39 bullet for the AKS rifle (a Kalashnikov variant) achieves 1,445 foot-pounds of kinetic energy per second. In contrast, the 30-06 hunting rifle bullet carries 2,820 foot-pounds of energy.⁵²

The claim that the ammunition for semiautomatic pistols and shotguns is uniquely destructive is even less plausible than is the claim regarding semiautomatic rifles. Most "assault pistols" fire ammunition in the .45 or 9mm calibers, and have the same velocity as any other pistol in those common calibers. ⁵³ The shotguns labeled "assault weapons" also fire shells identical to those fired by all other shotguns.

The great irony of the claim that the rifles dubbed semiautomatic "assault weapons" are uniquely destructive is that they are the only rifles that have ever been designed not to kill. The semiautomatic rifles use the same ammunition as battlefield weapons such as the M-16, which deliberately use intermediate power ammunition intended to wound rather than to kill. The theory is that wounding an enemy soldier uses up more of his side's resources (to haul him off the battlefield and then care for him) than does killing an enemy.⁵⁴

Colonel Martin L. Fackler, M.D., former Director of the United *395 States Army Wound Ballistics Lab, the only research center in the world which studies wound ballistics, states:

Military bullets are designed to limit tissue disruption--to wound rather than kill. The full-metal-jacketed bullet is actually more effective for most warfare; it removes the one hit and those needed to care for him . . . newspaper descriptions comparing their effects with a grenade exploding in the abdomen . . . must cause the thinking individual to ask: . . . how is it possible that 29 children and one teacher out of 35 hit in the Stockton schoolyard survived? If producers of "assault rifles" had advertised their effects as depicted by the media, they would be liable to prosecution under truth-in-advertising laws. ⁵⁵

Assertions that the bullets from Kalashnikov rifles will tumble as they travel through the body, thereby greatly increasing the size of the wound channel, are nonsense. Dr. Fackler writes: "As a combat surgeon in Da Nang in 1968, I operated on many who had been wounded by AK-47 bullets. The typical wound was no more disruptive than that caused by many common handgun bullets." The .223 rifle round, used in many of the rifles dubbed "assault weapons" is described as producing wounds "less severe than those produced by hunting ammunition such as the 30-30." 57

E. Accessories

The more recent efforts at banning "assault weapons" focus on whether a firearm has two or more of a certain set of accessories. Unlike classifications based on the false assertion that "assault weapons" fire faster, have more ammunition capacity, or use more *396 destructive ammunition, the accessory-based definitions do pass the most minimal levels of rationality, because an "assault weapon" is defined as a firearm with a particular set of accessories. Likewise, a law which prohibited only pool tables which have bumpers in the playing area ("bumper pool") would likewise achieve minimal rationality. The classification would accurately separate certain guns from other guns. But, do the accessory-based classifications create a distinction without a difference? Let us examine the accessories which are usually used in defining an "assault weapon."

1. Pistol Grips

The major purpose of a pistol grip on a long gun is to stabilize the firearm while firing from the shoulder. By holding the pistol grip, the shooter keeps the barrel from rising after the first shot, and thereby stays on target for a follow-up shot. The defensive application is obvious, as is the public safety advantage in preventing stray shots.

It is true that a pistol grip allows a rifle to be fired without resting against the shoulder. Does this provide a rational basis for making the rifle illegitimate? Only if one also bans handguns; for every handgun, because it has a pistol grip, can be fired without resting against the shoulder.

Unless self-defense is considered illegitimate (see discussion part V, infra), a pistol grip is a legitimate defensive tool. With a pistol grip, a rifle can be held with one hand while the other hand dials 911 or opens a door. ⁵⁹ The application in a home defense situation is obvious, because burglary victims will not always have time to raise their gun to their shoulder, and may not even be in a position to take a shot from the shoulder.

2. Muzzle Brakes

A gunsmith can attach a muzzle brake to any gun. However, many semiautomatic rifles dubbed "assault weapons" have a threaded barrel for easy attachment of the brake. A muzzle brake reduces the gun's recoil and makes it easier to control.

Recoil vibrations look, mathematically, like a sine wave; as the *397 recoil sine waves travel from the firing chamber toward the muzzle end of the barrel, the waves will "whip" the muzzle around slightly. As a result, accuracy is diminished; a bullet that exits the muzzle when the muzzle is being whipped in one direction, at the top of a sine wave, will travel in a different direction from a bullet that leaves when the muzzle is whipped in a different direction, at the bottom of the sine wave. A new muzzle brake, the Browning "Ballistic Optimizing Shooting System," allows the shooter to "tune" the barrel vibrations produced by recoil. Different types of ammunition will produce different recoil vibration waves. For example, in the 270 Winchester rifle caliber a 160 grain bullet with 51 grains of gunpowder will produce different vibrations from a 130 grain bullet with 55 grains of gunpowder. The Browning muzzle brake can be adjusted by the shooter based on different types of ammunition, to optimize the recoil vibration for each particular type. One reviewer described the results of the tuning allowed by the Browning muzzle brake as, "(t)he most significant advancement in rifle accuracy in my lifetime." Other reviewers have been equally positive. They note that the Browning brake significantly reduces felt recoil to the shooter, and thereby reduces the "flinch" that causes shooters to jerk the rifle off-target.

Clearly, a gun with a muzzle brake is different than one without. It is both significantly more accurate because the muzzle and the shooter are both less likely to move out of position, and more comfortable to shoot. Improved accuracy and shooting comfort seem a dubious basis for classifying a firearm as uniquely suitable for prohibition.

3. Flash Hiders

Another common accessory is the flash suppressor, which reduces the flash of light from a rifle shot. Reduced flash decreases shooter's blindness--the momentary blindness caused by the sudden flash of light from the explosion of gunpowder. The flash reduction is especially important for shooting at dawn or at dusk. Additionally, reduced flash means that a person shooting at an attacker at night will less markedly reveal his own position. The flash hider also adds about one to three inches to the barrel length, thus making the firearms more difficult to *398 conceal.

In the summer of 1993, a Virginia Governor's Task Force held meetings on "assault weapons." Mr. Ed Owens, a senior official with BATF was asked "if the flash suppressor, the bayonet mount and the grenade launcher are features that affect the fire power?" Owens replied "it doesn't have a thing to do with it." Owens was then asked "if you had to pick the characteristics that give these weapons their killing power, what would be the main features?" Owens replied, "killing power is the cartridge, the larger the cartridge, the more deadly the weapon." (As noted above, "assault weapons" fire a smsaller cartridge than standard hunting rifles.)

4. Night Sights

Another purported rational basis of "assault weapons" prohibition has been that many of the guns are said to be configured to allow easy attachment of night sights. It should be noted, however, that a mounting attachment which is perfectly configured to attach night sights is also perfectly configured to attach sights which work only during the daytime.

In any case, there is nothing illegitimate about night sights. While it is generally illegal to hunt at night, it is legal to defend home, person, and property at night. Turning on a light to try to find an attacker's position would reveal one's own position, and thereby give the criminal the first shot.

5. Folding Stocks

Guns with folding stocks are sometimes singled out for harsh treatment. For example, the New Jersey legislature's "assault weapon" ban outlaws the Ruger Mini-14 rifle, but only the model with a folding stock. A folding stock makes a gun shorter and easier to carry, thus making it useful to hunters. A folding stock also makes a gun more maneuverable in a confined setting such as a home, and hence harder *399 for an attacker to take away. The reduced size makes the gun easier to conceal, for legitimate or illegitimate purposes. Unless all handguns are also deemed illegitimate, because they are far more concealable than rifles in any configuration, there is no rational claim that a rifle's folding stock makes it less legitimate than other firearms.

6. Bayonet Lugs

Under legislation sponsored by Representative William Hughes in 1990, any gun which could accept a bayonet could be considered an illegal "assault weapon." Bayonets are obviously of no sporting utility, although they could be marginally useful in the personal and civil defense contexts. The major problem with the bayonet-ban, however, is that any rifle barrel can be a bayonet mount. Moreover, how many, if any, criminals have ever charged their victims with a bayonet.

7. Grenade Launchers

Some guns are selected for prohibition because they have an attachment that allows for the easy mounting of a grenade launcher. A gun which launches grenades is distinguishable from a gun which does not. The explosion from a grenade is much more powerful, and much less discriminating than is a bullet from a firearm. But possession of grenades, as well as the components

necessary to assemble grenades, is already strictly regulated by federal law, under terms *400 similar to those applicable to machine guns. Possession of grenade launchers is similarly regulated.⁶⁶

Given the existing rational regulation of grenades, grenade components, and grenade launchers, it must then be asked whether the fact that a grenade launcher could be attached to a particular gun has any genuine impact on public safety. When asked by a Wall Street Journal reporter, neither the BATF nor the Department of Justice was able to indicate a single instance of a grenade launcher (or a bayonet attached to a rifle) being used in a crime in the United States.⁶⁷

F. Design History

The features discussed above all relate to the physical characteristics of a firearm. Besides physical traits, having a particular design history may also make a gun into an "assault weapon." A common statutory definition of an "assault pistol" is: All semiautomatic pistols that are modifications of rifles having the same make, caliber and action design but a shorter barrel and no rear stock or modifications of automatic weapons originally designed to accept magazines with a capacity of twenty-one (21) or more rounds. ⁶⁸

The definition raises serious problems regarding vagueness. Gun owners are required to know details of the design history of their gun, and of the models which preceded the gun they own. Even assuming *401 that small details of firearms design history were common knowledge among ordinary gunowners, there is no rational basis for outlawing a gun based on its design history. To whatever extent guns with an allegedly pernicious design history have common physical traits making them more dangerous, legislation can be drafted on the basis of those traits. To hold that a firearm's military design history creates a rational basis for prohibition would be the same as authorizing a prohibition on "CJ" Jeeps, which, although operationally similar to other civilian jeeps, have a military design history.

Moreover, to prohibit an object based on a mere historical relation to the military could, under Cleburne's illegitimacy prong, reflect an illegitimate bias against the military, and hence fail to survive careful rational basis scrutiny.⁷¹

G. Positive Operational Characteristics

Given the above discussion, which has pointed out how the guns labeled "assault weapons" are similar to other guns, one may wonder why anyone would want to own such a gun. Although a person's choice of firearms model, like their choice of automobiles, may reflect emotional or aesthetic values rather than practical ones, there are two significant reasons why many practical gun owners would choose an "assault weapon."

1. The Guns are Reliable, Rugged, and Simple

Most of the rifles dubbed "assault weapons" have a greater immunity to weather conditions and abuse than more traditional hunting rifles. A semiautomatic AKS can be dropped in the mud, *402 dragged through brush, and can withstand the rigors of extremely cold or hot climes. Although the guns are not military arms, they do share many common components with the automatic assault rifles that they resemble. As a result, they share an imperviousness to rough conditions and a lack of cleaning with military guns. The ruggedness stems in part from the fact that the guns have fewer moving parts than specialized sports guns, and are hence easier for persons who are not firearms hobbyists to maintain.

In addition, many "assault weapons" have large trigger guards which are designed so that the shooter can press the trigger while wearing gloves. Plastic stocks (found on many "assault weapons") are superior because wood stocks, when cold and

wet, may swell, thereby degrading the accuracy of the firearm. Plastic stocks are also less likely than wood stocks to break if the gun is dropped.

The simplicity of design and ease of use of these weapons--only revolvers are easier to load and shoot--also makes them suited as weapons of self-defense for persons who are not gun aficionados. However, this ease of use is no advantage from the viewpoint of gun prohibitionists. Councilwoman Cathy Reynolds, sponsor of Denver's "assault weapon" prohibition, has complained that the guns "are very easy to use." 73

2. The Guns are Very Accurate

The firing of any gun produces recoil or kick. Recoil makes it more difficult to aim and control a shot. Guns with less recoil are easier to fire safely, and better-suited for self-defense. People without a great deal of upper body strength may find a low-recoil gun to be the only kind they can successfully use for self-defense. In a semiauto- matic, the energy from the gun-powder explosion is directed forward, rather than backwards towards the shooter. This energy is used to load the next cartridge into the firing chamber, ready for a new trigger press. As a result, semiautomatics have less recoil than other guns, and are therefore quite appropriate for use in situations where accuracy is crucial for safety, such as self-defense in an urban environment.

*403 As discussed above, some rifles or shotguns dubbed "assault weapons" have a pistol grip in front of the trigger guard. The pistol grip helps stabilize the firearm, to keep the barrel from rising after the first shot, and thereby stay on target for a follow-up shot. Also enhancing the accuracy of a follow-up shot is the fact that in many "assault weapons" the stock is relatively level with the barrel--a configuration which helps the barrel stay on target after the first shot.

It would be rather irrational to ban a firearm because it was particularly accurate and, hence, posed a smaller danger of stray shots.⁷⁴ Public safety is enhanced if persons using guns for personal and civil defense hit their targets. The defensive use of firearms will sometimes involve more than a single shot. Of what rational benefit to public safety is a law that encourages citizens to use guns with high recoil that fire wildly, thereby endangering every person in the vicinity?

H. Conclusion Regarding Physical Characteristics

Can "assault weapon" legislation survive a careful rational basis test? In some cases, as in Connecticut, a legislative body defines "assault weapon" simply by listing particular guns, while other nearly identical guns are left uncontrolled. ⁷⁵ In California, the model for many of the subsequently-enacted "assault weapon" prohibitions, the banned guns were selected by persons thumbing through a picture book of guns. ⁷⁶ The incoherence of a picture-book-based firearms law was pointed out in a confidential memorandum from the California Attorney General's chief firearms expert, which observed that "(a)rtificial distinctions were made between semi-automatic weapons or leave them all alone."

Nor can the purported physical differences between "assault weapons" and other firearms form the basis of a rational classification. *404 Contrary to the imagery promoted by the gun control lobby, so-called "assault weapons" do not fire faster and do not have a greater ammunition capacity than many other firearms. Some "assault weapons" do possess features or accessories such as pistol grips or muzzle brakes, but these features do not make "assault weapons" illegitimate. If it is assumed that accuracy, particularly in a self-defense context, is not a negative feature on a gun, then the accessories on "assault weapons" cannot form a basis for prohibition. The firearms commonly dubbed "assault weapons" are generally more rugged and reliable, and easier to shoot accurately than are many other firearms.

Indeed, Professor Jacobs, of New York University, observes that there is less of a rational basis for banning "assault weapons" than there would be for almost any other firearm:

Pistols are dangerous because they are easily carried and concealed; shotguns because they spray metal projectiles over a wide area; certain hunting rifles because they fire large caliber bullets, and certain "sniper rifles" because they are accurate over great distances. Assault rifles are not remarkable by any of these criteria. ⁷⁸

Because the rational basis test precludes "discriminations which are entirely arbitrary," the physical characteristics of so-called "assault weapons" cannot survive careful rational basis review.

IV. Insufficiently Demonstrated Use in Crime

An alternative rational basis for the prohibition of "assault weapons" might be the frequency of their use in crime. After all, even if brown dogs are physically like black dogs, the fact that black dogs are ten times more likely to bite would form a rational basis for greater regulation of black dogs.

Whether the frequency of use in crime provides a rational basis for an "assault weapon" prohibition depends largely on the fact-finder's depth of inquiry. If the fact-finder unquestionably accepts the legislative findings that accompany an "assault weapon" prohibition, the legislative statement that "assault weapons" are frequently used in *405 crime becomes a fact, and would form a rational basis for prohibition. ⁸⁰ Likewise, if at an evidentiary hearing, the fact-finder accepted without question the statements of government officials who supported prohibition, a rational basis for prohibition would exist.

But such blind deference is not appropriate for application of the rational basis test. Cleburne found the city's fears about the risks of crowding caused by the location of a group home to be irrational because the purported harms had been "insufficiently demonstrated." 81

The Cleburne approach appears consistent with what Justice Stone wrote in Carolene Products:

Where the existence of a rational basis for legislation whose constitutionality is attacked depends upon facts beyond the sphere of judicial notice, such facts may properly be made the subject of judicial inquiry, and the constitutionality of a statute predicated upon the existence of a particular state of facts may be challenged by showing to the court that those facts have ceased to exist. 82

*406 State court jurisprudence also suggests that judges should not blindly accept the government's allegations regarding the factual basis for legislation. 83

If the assertions of government officials are subjected to any judicial scrutiny, then it rapidly becomes clear that the factual basis for prohibition is built on a foundation of sand. In Denver, for example, Chief of Police Ari Zavaras testified to the City Council that "assault weapons are becoming the weapons of choice for drug traffickers and other criminals." In a lawsuit resulting from the prohibition that the Chief had endorsed, the Colorado Attorney General's office examined the Chief's ipse dixit. The State of Colorado inventoried every single firearm in Denver police custody as of March 1991. Of the 232 shotguns seized by the police, not a single one was covered by the ordinance. Of the 282 rifles in the police inventory, nine (3.2%) were covered by the ordinance. Of the 1,248 handguns in the police inventory, a mere eight (0.6%) were so-called "assault pistols" covered by the ordinance. Of the fourteen banned guns in Denver police custody, only one had been used in a crime of violence. Half had been seized from persons who were never charged with any offense. 86

A. "Assault Weapons" are Used in Only About One Percent of Gun Crime

The following statistics summarize the findings of official governmental statistical surveys. Because different governments reported data for different years, or reported different types of data (e.g. *407 homicides vs. gun seizures), the raw figures reported from each jurisdiction are sometimes not directly comparable.

Akron. Of the 669 guns seized by the Akron police in 1992, fewer than 1% were "assault weapons." The 1% figure represents a decline from 1988, when about 2% of seized guns were "assault weapons." 88

Baltimore County. During the first nine months of 1990, out of 644 weapons logged in to the Baltimore County Police Property Room, only two were "assault weapons." Out of 305 murders in the city of Baltimore in 1990, only seven (2.3%) involved rifles and shotguns of any kind, much less any subset of those firearms labeled "assault weapons." 89

Bexar County, Texas (including San Antonio). From 1987 to 1992, "assault weapons" were used in 0.2% of homicides and 0.0% of suicides. From 1985 to 1992, they constituted 0.1% of guns seized by the police, according to Vincent DiMaio, the county's Chief Medical Examiner. 90

California. In 1990, "assault weapons" comprised thirty-six of the 963 firearms involved in homicide or aggravated assault and analyzed by police crime laboratories, according to a report prepared by the California Department of Justice, and based on data from police firearms laboratories throughout the state. The report concluded that "assault weapons play a very small role in assault and homicide firearm cases." Of the 1,979 guns seized from California narcotics dealers in 1990, fifty-eight were "assault weapons." 92

Chicago. From 1985 through 1989, only one homicide was *408 perpetrated with a military caliber rifle. 93 Of the 17,144 guns seized by the Chicago police in 1989, 175 were "military style weapons." 94

Chicago suburbs. From 1980 to 1989, "assault weapons" totaled 1.6% of seized drug-related guns. 95

Connecticut. "Assault weapons" constituted 198 of the 11,002 firearms confiscated by police in the years 1988 through 1992. 96

Denver. A gun-by-gun examination of the firearms in Denver police custody as of March 1991 found fourteen "assault weapons" among the 1,752 crime guns. Only one of those guns had been used in a crime of violence (an aggravated assault). 97

Florida. The Florida Assault Weapons Commission found that "assault weapons" were used in seventeen of 7,500 gun crimes for the years 1986 to 1989. 98

Los Angeles. Of the more than 4,000 guns seized by police during one year, only about 3% were "assault weapons." 99

Maryland. In 1989-90, there was only one death involving a "semiautomatic assault rifle" in all twenty-four counties of the State of Maryland. 100

Massachusetts. Of 161 fatal shootings in Massachusetts in 1988, three involved "semiautomatic assault rifles." From 1985 to 1991, the guns were involved in 0.7% of all shootings. 102

Miami. The Miami police seized 18,702 firearms from January 1, *409 1989 to December 31, 1993. Of these, 3.13% were "assault weapons." 103

Minneapolis. From April 1, 1987 to April 1, 1989, the Minneapolis police property room received 2,200 firearms, nine of which were "assault weapons." 104

Nashville. Of the 190 homicides perpetrated in Nashville in 1991- 92, none were committed with an "assault weapon." ¹⁰⁵

Newark. According to surgeons at the University Hospital in Newark, in the 1980s there was one wounding in the city in that decade in which the bullet removed was the type found in "semiautomatic assault rifles." ¹⁰⁶

New Jersey. According to the Deputy Chief Joseph Constance of the Trenton New Jersey Police Department, in 1989, there was not a single murder involving any rifle, much less a "semiautomatic assault rifle," in the State of New Jersey. ¹⁰⁷ No person in New Jersey was killed with an "assault weapon" in 1988. ¹⁰⁸ Nevertheless, in 1990 the New Jersey legislature enacted an "assault weapon" ban that included low-power .22 rifles, and even BB guns. Based on the legislature's broad definition of "assault weapons," in 1991, such guns were used in five of 410 murders in New Jersey; in forty-seven of 22,728 armed robberies; and in twenty-three of 23,720 aggravated assaults committed in New Jersey. ¹⁰⁹

New York City. Of 12,138 crime guns seized by New York City police in 1988, eighty were "assault-type" firearms. 110

New York State. Semiautomatic "assault rifles" were used in *410 twenty of the 2,394 murders in New York State in 1992. 111

San Diego. Of the 3,000 firearms seized by the San Diego police in 1988-90, nine were "assault weapons" under the California definition. 112

San Francisco. Only 2.2% of the firearms confiscated in 1988 were military-style semiautomatics. 113

Virginia. Of the 1,171 weapon analyzed in state forensics laboratories in 1992, 3.3% were "assault weapons." 114

Washington, D.C. The Washington Post reports: "(L)aw enforcement officials say that the guns have not been a factor in the area's murder epidemic." "Assault weapons" were 3% of guns seized in 1990. 116

National statistics. Less than four percent of all homicides in the United States involve any type of rifle. ¹¹⁷ No more than .8% of homicides are perpetrated with rifles using military calibers. (And not all rifles using such calibers are usually considered "assault weapons.") Overall, the number of persons killed with rifles of any type in 1990 was lower than the number in any year in the 1980s. ¹¹⁸

B. Police Shootings

Although people reading newspapers might infer that police officers by the score are being murdered by "assault weapons," police officer deaths in the line of duty are at the lowest level in decades. ¹¹⁹ From 1975 to 1992, out of 1,534 police officers feloniously murdered in the *411 United States, sixteen were killed with firearms defined as "assault weapons" by California law. ¹²⁰ The Journal of California Law Enforcement wrote: "It is interesting to note, in the current hysteria over semi-automatic and military look-alike weapons, that the most common weapon used in the decade to murder peace officers was that of the .38 Special and the .357 Magnum revolver." ¹²¹ The Journal found that "calibers which correspond to military-style shoulder weapons" accounted for 8% of total firearms used to murder police officers in California. ¹²²

The impression conveyed by some television programs is that shoot-outs between police and criminals involve steadily escalating amounts of fire-power. However, according to the New York City police department study of shootings at police in 1989, the average number of shots fired at the police per encounter was 2.55, and this number represented a decline from previous years. 123

C. The Cox Newspapers Study

In contrast to the evidence discussed above, there is one report, from the Cox Newspapers chain, which finds that "assault weapons" are disproportionately used in crime. ¹²⁴ If the rational basis test means "a shred of evidence," the Cox report would suffice as a shred. But if judicial analysis is to be as searching as Justice Stone's opinion in Carolene Products ¹²⁵ suggests, the Cox report may not bear close scrutiny.

The Cox reporters examined records of gun traces conducted by BATF and found that for drug offenses, "assault weapons" were involved in approximately 12% of the traces. Because "assault weapons" amount to less than 12% of all firearms and if they are used in 12% of all drug crimes, then assault weapons are disproportionately involved in drug crimes. ¹²⁶

*412 Extrapolating from the trace data, the Cox Newspaper reporters asserted that "assault weapons" were used in ten percent of all firearms crime, and that because "assault weapons" were (by Cox's estimate) 0.5% of the total gun supply, "assault weapons" are "20 times more likely to be used in a crime than a conventional firearm." Yet when asked about the figure, BATF wrote: "(C)oncluding that assault weapons are used in 1 of 10 firearms related crimes is tenuous at best since our traces and/or the UCR (Uniform Crime Reports) may not truly be representative of all crimes." 128

Police reports from major cities support the BATF viewpoint. As detailed below, the police statistics for the major cities report far less prevalence of "assault weapons" than the Cox report claimed to find. For example, the percentage of "assault weapons" reported by Cox newspapers, based on the BATF traces, was 10% for Chicago, 19% for Los Angeles, 11% for New York City, and 13% for Washington. In each of those cities, police departments conducted complete counts of all guns which had been seized from criminals (not just the guns for which the police department requested a BATF trace). According to the actual police department counts of crime guns in each city, the percentage of assault weapons were only 3% for Chicago, 1% for Los Angeles, 1% for New York City, and 0% for Washington, D.C. 129

Cox's problem may be that BATF traces are not an accurate indicator of which guns are used in crime. In an average year, there are about 360,000 violent crimes committed with firearms. Of those 360,000 crimes, BATF is asked to trace about 5,600 crime guns (less than 2% of total crime guns). It is statistically likely that there would be a difference between the 2% of guns traced and crime guns as a whole. The 2% of guns selected for a trace request are not a random sample, but rather a select group chosen by local police departments. *413 According to basic statistics theory, a non-random sample of 2% is unlikely to accurately represent the larger whole. A non-random sample becomes statistically valid only when 60% to 70% of the total relevant population is sampled. As the Congressional Research Service explains:

(T)he firearms selected for tracing do not constitute a random sample and cannot be considered representative of the larger universe of all firearms used by criminals, or any subset of that universe. As a result, data from the tracing system may not be appropriate for drawing inferences such as which makes or models of firearms are used for illicit purposes. ¹³¹

There are a number of possible reasons why "assault weapons" would be more likely be selected for a trace request than other guns. Most "assault weapons" were manufactured relatively recently, and newer guns are easier to trace. Moreover, many "assault weapons" have an unusual appearance, which might pique curiosity (and, hence, generate a trace request) more than an old-fashioned, common crime gun such as a Smith & Wesson .38 Special. The vast publicity surrounding "assault weapons" may also have increased police interest in these guns, and hence increase the likelihood of trace requests.

D. Planning for the Future

Faced with evidence that, contrary to the legislative findings which underlay a prohibition, "assault weapons" are rarely used in crime, some courts have concluded that prohibition is still legitimate because "(t)he prohibition of a harmful act need not be postponed until it occurs." Because the future is unknowable, the courts' concerns about future criminal use of the guns is at least more plausible than some legislators' plainly erroneous claims that the guns are currently the "weapon of choice" for criminals. Nevertheless, for a law to pass a rational basis test, there must be at least credible evidence that the guns in question could become increasingly used in crime. Yet, semiautomatics are more than a century old, and large capacity *414 magazines are older still. If semiautomatics and large capacity magazines, after a century of availability, remain rarely used in crime, it is not rational to ban them based on the theory that they might one day become crime guns. Any gun could become a crime gun in the future, but the possibility hardly means that a legislative body can ban any gun that it wrongly considers to be a criminal's "weapon of choice."

Consider, for example, the big-game hunting rifles that the gun control lobbies currently appear to approve. These rifles are extremely powerful, and are capable of being used at very long distances. The rifles are, after all, designed to kill animals such as an 800 pound elk with a single shot at a distance of a third of a mile or more. Accordingly, the big-game rifles would be well-suited for assassinations. Suppose that a future legislature bans these big-game rifles by calling them "assassination weapons," and a court reviewing the ban was presented with extensive evidence that big-game rifles (a/k/a "assassination weapons") are used in only about 1% of assassinations, and that there is no persuasive evidence of a trend towards increased use. Surely the court would not uphold the "assassination weapon" prohibition merely based on a legislature's self-inflicted and unfounded fear that big-game rifles at some point could become frequently used in assassinations.

V. Illegitimate: Banning Protective Gun Ownership

A. The Legitimacy of Self-Defense

"Assault weapons" are also said to be appropriate for prohibition because they are not suitable for sports--because they are, as the Denver City Council put it, "designed primarily for military or antipersonnel use." Consistent with these findings, BATF exercised its *415 authority to ban the import of certain "assault weapons" because the Bureau found that they were not "particularly suitable" for sports. The Bureau also noted that several of the non-importable guns were well-suited for defensive purposes. Firearms expert Jack Lewis, whose two books on "assault weapons" are cited as authoritative by gun control advocates in their briefs defending "assault weapon" bans, likewise writes that almost all of the guns dubbed "assault weapons" are well-suited for defensive purposes, although some of the guns are too heavy and cumbersome for field sports. 137

A ban based on a weapon's utility for antipersonnel or defensive purposes fails the Cleburne consistency prong because virtually all guns (except for a few highly specialized models such as those used by biathaletes) are designed primarily for anti-personnel use. Guns are generally made for injuring and killing people. It is irrational to ban particular guns based on a characteristic that they share with almost all guns. A law might as well assert that "assault weapons" are uniquely pernicious because they share the characteristic of using gunpowder.

But even assuming that there is a real line between sporting guns and defensive guns and that the "assault weapon" bans draw that line correctly; ¹³⁸ drawing the line as prohibiting defensive guns fails the *416 Cleburne legitimacy prong. Without reference to a particular right to keep and bear arms, use of deadly physical force for self-defense and the defense of others is lawful in every state. In fact, many state constitutions guarantee a right of self-defense, and American common law recognizes a self-defense right of very long standing. ¹³⁹ Because self-defense is a recognized, lawful activity everywhere, prohibiting an object

simply because it is useful for self-defense rather than for sport cannot be legitimate. Hence, that prohibition cannot pass the "illegitimacy" prong of the Cleburne rational basis test.

B. Police Exemption

In response to the above analysis regarding the legitimacy of lawful self-defense, it might be suggested that "assault weapons" are not defensive weapons, instead they are offensive weapons, better suited for killing large numbers of innocent people than for protecting innocent life. The analysis of the physical characteristics of "assault weapons" suggests that claims regarding the extraordinary offensive capabilities of "assault weapons" are incorrect. But the rationality of the offensive/defensive distinction can be addressed more directly by examining the inconsistency of the claim within the very legislation that makes the claim.

Every "assault weapon" prohibition ever enacted or proposed in the United States (or any other nation) includes an exception for police possession of these weapons. Yet, the only reason for police to possess firearms is for protection activities. It is irrational to ban firearms on the grounds that they are not suitable for protection, and to simultaneously allow the police to use them. Unlike police officers, ordinary citizens cannot make a radio call for backup that will bring a swarm of police officers within seconds. The lives of ordinary citizens are just as valuable as the lives of police officers, and ordinary citizens are just as entitled to use the best firearms available for protection. ¹⁴¹

Conversely, are "assault weapon" only useful for massacring the innocent? If so, then such weapons have no rational place in the hands of domestic law enforcement. Unlike the security forces in other, less *417 free countries, the American police do not need highly destructive weapons allegedly designed for killing large numbers of people at once.

VI. Conclusion

"Equal protection of the laws requires that statutory classifications be based on differences that are real in fact" 142 The classification of "assault weapons" is not based on differences that are real in fact. The banned firearms do not fire faster than many guns that are not banned. The banned firearms do not have a larger ammunition capacity than many guns that are not banned. In fact, the number of rounds a semiautomatic can fire without reloading has nothing to do with the gun. Rather, that capacity is determined solely by the magazine, a separate, detachable, and interchangeable part. All the other physical characteristics of "assault weapons" which might form a rational basis for prohibiting them are simply not valid (such as claims about ammunition lethality), are trivial (such as bayonet lugs), or make the gun more accurate (such as a muzzle brakes). Official statistics prove that so-called "assault weapons" are rarely involved in criminal activity, and hence the use of "assault weapons" in crime is insufficiently demonstrated to pass the rational basis test.

Banning "assault weapons" has been justified on the basis that these weapons are better suited for personal protection than they are for recreation. However, this justification is illegitimate because the use of deadly force for protection from grave, imminent harm is lawful in the United States.

The demand for "assault weapon" prohibition is often accompanied by a self-righteous insistence that only a criminal or a maniac would oppose prohibiting extremely dangerous firearms which have no legitimate use and are the criminal weapon of choice. But the closer one looks at the reasons given for "assault weapon" bans the less one sees. The prohibition is no more rational than a prohibition on beer based on legislative "findings" that beer grows on trees, that a single sip always causes instant physical addiction, and that beer is more dangerous than other alcohol because it is stored in aluminum containers. If the rational basis test means anything, it means that an "assault weapon" prohibition is unlawful.

Footnotes

- Research Director, Independence Institute, Golden, Colorado. B.A., Brown University; J.D., University of Michigan, technical consultant to the International Wound Ballistics Association. The author would like to thank Andy Chaisen, Paul Blackman, Bob Dowlut, Sandra Froman, Richard Gardiner, Don Kates, and Dan Polsby for their comments. Errors are, of course, solely the author's.
- Deposition of Sharon Deatherage, State of Colo. ex. 60, at 3, 5-8, Robertson v. Denver, no. 90CV603 (Denver Dist. Ct. Feb. 26, 1993).
- 2 Cal. Penal Code SS 12275-12290 (West 1992).
- N.J. Stat. Ann. SS 2C:39-1 to 39-12, 43-6 to 43-7, 58-5 to 58-11 (West 1982 & Supp. 1993).
- 4 1993 Conn. Legis. Serv. 93-306 (West).
- ⁵ See, e.g., New York City, N.Y. Local Law 78-88-823 (1991); Haw. Rev. Stat. SS 134-1, 134-4, 134-8 (West 1988 & Supp. 1993).
- Peter G. Kokalis, Feinstein Amendment Could Ban 184 Firearms, Not 19, Gun Week, Jan. 14, 1994, at 7.
- See Eric C. Morgan, Note, Assault Rifle Legislation: Unwise and Unconstitutional, 17 Am. J. Crim. L. 143 (1990); Robert A. O'Hare, Jr. & Jorge Pedreira, An Uncertain Right: The Second Amendment and the Assault Weapon Controversy, 66 St. John's L. Rev. 179 (1992).
 - The Second Amendment states: "A well regulated Militia, being necessary to the security of a free State, the right of the People to keep and bear Arms, shall not be infringed." U.S. Const. amend. II.
- 8 Glenn Harlan Reynolds, The Right to Keep and Bear Arms under the Tennessee Constitution, 61 Tenn. L. Rev. (forthcoming 1994).
- Weith R. Fafarman, State Assault Rifle Bans and the Militia Clauses of the United States Constitution, 67 Ind. L.J. 187 (1991).
- "(T)he full scope of liberty guaranteed by the Due Process Clause cannot be found in or limited by the precise terms of the specific guarantees elsewhere provided in the Constitution . . . (such as) the freedom of speech, press, and the religion; the right to keep and bear arms" Planned Parenthood v. Casey, 112 S. Ct. 2791, 2805 (1992) (quoting with approval Poe v. Ullman, 367 U.S. 497, 543 (1961) (Harlan, J., dissenting)); Moore v. East Cleveland, 431 U.S. 494, 502 (1976) (quoting Poe, 367 U.S. at 543).
- 11 E.g., Fresno Rifle Club v. Van de Kamp, 965 F.2d 723 (9th Cir. 1992).
- The most thorough discussions of state constitutional guarantees may be found in Robert Dowlut, Federal and State Constitutional Guarantees to Arms, 15 U. Dayton L. Rev. 59 (1989); Robert Dowlut & Janet A. Knoop, State Constitutions and the Right to Keep and Bear Arms, 7 Okla. City U. L. Rev. 177 (1982).
- 13 E.g., United States v. Marshall, 908 F.2d 1312 (7th Cir. 1990).
- See generally Gayle Lynn Pettinger, Note, Rational Basis with Bite: Intermediate Scrutiny by any Other Name, 62 Ind. L.J. 779 (1986-87).
- Mathews v. De Castro, 429 U.S. 181, 185 (1976); Mathews v. Lucas, 427 U.S. 495, 510 (1976). See also Young v. Haines, 718 P.2d 909, 917 (Cal. 1986).

- See, e.g., Williams v. Vermont, 472 U.S. 14 (1985) (holding that a tax credit for purchasers of out-of-state cars that only state residents could receive violates the Fourteenth Amendment's Equal Protection Clause; as in Zobel v. Williams, 457 U.S. 55 (1982), the decision was not based on the right to interstate travel); Hooper v. Barnalillo County Assessor, 472 U.S. 612 (1985) (rejecting tax exemptions for person who is a resident before a particular date); Metropolitan Life Ins. Co. v. Ward, 470 U.S. 869, 883 (1985) (eliminating statute that gave tax preference to domestic insurance industries); Zobel v. Williams, 457 U.S. 55 (1982) (holding that payment of benefits to state residents based on length of residence violated Equal Protection Clause); Miller v. Carter, 547 F.2d 1314, 1316 (7th Cir. 1977), aff'd by an equally divided court, 434 U.S. 356 (1978) (remanding Equal Protection Clause claim for further consideration). See also Mahone v. Addicks Util. Dist., 836 F.2d 921, 937 (5th Cir. 1988).
- 17 473 U.S. 432 (1985).
- 18 Id.
- In Colorado, a classification "must be reasonable and not arbitrary and must be based on substantial differences" having a reasonable relation to public purpose to be achieved. Dunbar v. Hoffman, 468 P.2d 742, 744 (Colo. 1970). In California, it is required that "the court conduct •a serious and genuine judicial inquiry into the correspondence between the classification and the legislation goals." Elysium Inst., Inc. v. County of Los Angeles, 283 Cal. Rptr. 688, 698 (Cal. Ct. App. 1991) (citing Fein v. Permenente Medical Group, 695 P.2d 665 (Cal. 1985)).
- People v. Instawhip Denver, Inc., 490 P.2d 940, 943 (1971) (voiding regulation of dairy products because it lacked "a real and substantial relation to the public health, safety, morals and welfare"); Branson v. City and County of Denver, 707 P.2d 338, 340 (Colo. 1985) (voiding as irrational statute giving widows of firefighters in cities with more than 100,000 population less benefits than widows in smaller cities); Gallegos v. Phipps, 779 P.2d 856, 860-61 (Colo. 1989) (holding that it is irrational to make tavern owner's duty of care to a licensee higher than duty of care to an invitee).
- Defense Intelligence Agency, Small Arms Identification and Operation Guide Eurasian Communist Countries 105 (Washington: Government Printing Office, 1988).
- Because the guns are "selective fire," the shooter can flip a selector switch to choose between automatic and semiautomatic fire, sometimes with the additional option of tri-burst fire.
- 23 National Firearms Act, ch. 757, 48 Stat. 1236 (1934).
- 24 26 U.S.C. SS 5811-5812, 5845 (1988).

As of May 1986, production of new automatics (including assault rifles) for the civilian market became completely illegal, although there have been some disputes among the lower federal courts about the constitutionality of the prohibition. See Farmer v. Higgins, 907 F.2d 1041 (11th Cir. 1990), rev'g 1:87-CV-440-JOF (1989), cert. denied, 498 U.S. 1047 (1991); but cf. United States v. Dalton, 990 F.2d 1166 (10th Cir. 1993); United States v. Rock Island Armory, Inc., 773 F. Supp 117 (C.D. Ill.), app. dism'd, 1991 U.S. App. LEXIS 19505 (7th Cir. Aug. 13, 1991).

- Stockton murderer Patrick Purdy did not use an AK-47. He used a Chinese, semiautomatic gun known as the AKM-56S. See 135 Cong. Rec. 19, S1871 (1989) (Testimony of James J. Baker).
- A few guns labeled "assault weapons" are revolver-type guns (such as the Striker 12 shotgun), while others are single-shot (able to fire only a single shot before reloading), such as the Encom CM-55 shotgun.

- Again, there are a few exceptions. The Uzi Pistol is used by the Israeli army.
- Cal. Penal Code, supra note; Conn. Legis. Serv., supra note.
- N.J. Stat Ann., supra note; Kokalis, supra note, at 7.
- The phrase "assault weapon" is used in quotes because, as will be detailed below, the phrase is not a legitimate definition of firearms that are in any meaningful way different from other firearms. In contrast, the phrase "assault rifle" is generally used without quotation marks, because "assault rifle" clearly defines a set of firearms that are distinguishable from other firearms.
- Cal. Penal Code, supra note 2. Similarly, Bridgeport, Connecticut police chief Thomas Sweeney asserted: "World War II-era semi-automatics are not included in the ban (recently enacted by Connecticut) because they don't fire as fast as modern semi-automatics." Cop Out, Shooting Industry, at 173 (Shot Show Issue 1994).
- A bullet is the single lead projectile that is fired from a rifle or handgun. Before being fired, the bullet is contained in a shell (usually made of brass) that also contains gunpowder and a primer. When the trigger is pulled, a firing pin strikes the primer, igniting the gunpowder, pushing the bullet out of the shell, and down the barrel.
 - The operation of a shotgun is essentially similar, except that the shotgun shoots a set of pellets, or shot, rather than a single bullet, and the shell is made of plastic (sometimes paper), rather than brass.
 - A "round" is a single unit of rifle, handgun, or shotgun ammunition, fully assembled.
- See Morgan, supra note 7, at 149; William R. McGrath, An Open Letter to American Politicians, Police Marksman, May/June 1989, at 19; Edward Ezell, The AK-47 Story, (Smithsonian Institution 1986). See also Kent Jenkins, Jr., Calls for Ban Boost Assault Rifle Sales, Wash. Post, Mar. 6, 1989, at B1 ("(BATF) weapons experts say that the guns' firing mechanisms are no different from those of other rifles.").
 - According to testimony of the Bureau of Alcohol, Tobacco and Firearms: The AK-47 is a select fire weapon capable of firing 600 rounds per minute on full automatic and 40 rounds per minute on semiautomatic. The AKS and AK-47 are similar in appearance. The AK-47 is an NFA (National Firearms Act of 1934) type weapon, having been manufactured as a machine gun. The AKS is difficult to convert, requiring additional parts and some machinery The AKS is a semiautomatic that, except for its deadly military appearance, is no different from other semiautomatic rifles. As a matter of fact, the identical firearm with a sport stock is available and, in appearance, no different than other so-called sporting weapons. Morgan, supra note 7, at 148 n.29 (quoting Assault Weapon Import Control Act of 1989, 1989: Hearings on H.R. 1154 before Subcomm. on Trade of the House Comm. on Ways and Means, 101st Cong., 1st Sess. 70 (1989).)
- In a bolt-action gun, after one cartridge is fired, the shooter pulls on the bolt handle to load the next cartridge into the chamber. R.A. Steindler, The Firearms Dictionary 15 (1970). The bolt-action rifle was the military firearm of the U.S. Army during World War I, and of military forces in other parts of the world for decades thereafter.
- Affidavit of Ron Phillips, Colo. ex. 29, at 2, Robertson v. Denver, supra note 1; Johnson aff., Colo. ex. 51, at 3, Robertson v. Denver, supra note 1 (Defense Intelligence Agency expert in assault weapons classification).
- 36 Steindler, supra note, at 20.
- Cal. Penal Code, supra note 2.

- Morgan, supra note 7, at 149; Gary Kleck, Point Blank: Guns and Violence in America 79 (1992).
- N.Y. Times, May 16, 1989, at A1.
- Kokalis, supra note, at 7.
- Richard M. Aborn, Testimony before the Committee on Codes of the Assembly of the State of New York (Jan. 3, 1991).
- See James B. Jacobs, Assault Rifles are Bad Targets, Newsday, May 28, 1993, at 58 ("(a) spent magazine can be popped out and a new one inserted in an instant.")
- Malcolm Gladwell, Irrational Bans on "Assault Weapons" Draw False and Ignorant Distinction, Dispatch (Columbus, Oh.), Mar. 27, 1993, at 7.
- Phillips aff., supra note 35 at 2.
- Statement of Edward D. Conroy, Deputy Associate Director, Law Enforcement, BATF, before U.S. Senate Subcommittee on the Constitution, Feb. 10, 1989, at 1; Charles Mohr, Firearms Market Thrives Despite an Import Ban, N.Y. Times, Apr. 3, 1989, at A14.
- S. Rep. No. 160, 101st Cong., 1st sess. 3 (1989) (testimony of Detective Jimmy L. Trahin of the Los Angeles Police Department Firearms/Forensics Ballistics Unit, stating that: "99% of these so-called assault weapons are not easily converted.")

A machine gun expert explains the complexity of converting a semiautomatic rifle to automatic: If time and effort are of no consequence, any firearm, even a lever-action rifle, can be converted to fully automatic fire. Converting a semiautomatic-only AK to automatic fire requires a great deal of skill and knowledge and no small amount of effort and equipment. Without being too specific, the procedure is more or less as follows:

- 1) A portion of the receiver must be modified. A hole through each side of the receiver (larger on one side than the other) must be precisely located (to within 0.0015) and drilled to accept the axis pin for the auto safety sear and its coil spring. This special coil spring also retains the hammer and trigger pins. If not installed correctly, the hammer and trigger axis pins will not be retained, and these components will fall out of the receiver. A slot must also be carefully milled into the rightside bolt-carrier rail to accept the auto safety sear. The three new components required are not easily procured or fabricated.
- 2) The hammer must be built up by welding and then with great skill re-shaped to provide a notch not present on the semiautomaticonly version.
- 3) An extension must be added at the rear of the sear by welding and then re-shaped to contact the selector lever.
- 4) A portion of the selector-lever stop on the rightside exterior of the receiver must be removed and another detent milled into the receiver for the new semiauto position.
- 5) The bolt carrier must be built up by welding and then re-shaped to actuate the auto safety sear.

If welded components are not subsequently and properly heat-treated, wear will be accelerated and these parts will fail in a short period of time, often with dangerous consequences. Furthermore, if this conversion is performed on an AKM type with a sheet-metal receiver, failure to install a completely unavailable five- component, anti-bounce mechanical drag device on the hammer (especially if the firing pin is not spring-retracted) will probably result in a disastrous ignition out of battery.

Peter G. Kokalis, Full Auto, Soldier of Fortune, Dec. 1989, at 16.

- Michael Hancock, The Convertible Submachine Gun Boondoggle, N.Y. Times, June 15, 1985, at A22.
- Frank C. Barnes, Cartridges of the World 59, 92, 110, 231, 249 (7th ed. 1993).
- Gladwell, supra note, at 7.
- Barnes, supra note, at 46.
- If the bullet enters and exits the target's body, only part of the kinetic energy is transferred to the target. If the bullet does not exit, all the kinetic energy will be transferred. Accordingly, bullets which are designed to deform on impact, and not exit the body, will generally do more damage than will other bullets. Bullets designed not to exit the target's body are available for virtually all types of firearms.
- See Lindsey, The Idolatry of Velocity, or Lies, Damned Lies, and Ballistics, 20 J. Trauma 1068 (1980).
- The videotape produced by Handgun Control, Inc. as a part of the lobbying campaign for prohibition acknowledges that "assault weapon" bullets are nothing special. The tape includes an interview with Dr. Hermann, Director of the Institute for Forensic Sciences. Dr. Hermann explains that the Uzi bullet is "slightly larger and slightly faster than the .38 special (a medium-sized handgun bullet). It does not produce a large cavitary destructive wound through the body." Handgun Control, Inc., The Deadly Distinction (1989).
- Martin L. Fackler, Getting Your Guns Straight, Wash. Post, Apr. 24, 1993, at A25.
- Martin L. Fackler, Wall St. J., Apr. 10, 1989, at A15, col. 1 (letter to the editor).
- Fackler, supra note . See also Emergency War Surgery, Second United States Revision of the Emergency War Surgery Handbook, United States Department of Defense 24 (Thomas E. Bowen, M.D. & Ronald F. Bellamy, M.D., eds., 1988) ("(M)any wounds from this weapon resemble those caused by much lower velocity handguns."); Martin L. Fackler et al., Wounding Effects of the AK-47 Rifle Used by Patrick Purdy in the Stockton Schoolyard Shooting of Jan. 17, 1989, 11 Am.J. Forensic Med. & Pathol. 185 (1990); Martin L. Fackler, Wounding Patterns of Military Rifle Bullets, 22 Intl. Def. Rev. 59 (1989); Martin L. Fackler, Wound Ballistics: A Review of Common Misconceptions, 259 JAMA 2730 (1980).
- Vincent C. DiMaio, Gunshot Wounds: Practical Aspects of Firearms, Ballistics and Forensic Techniques 146 (1985).
- Kokalis, supra note.
- The Gun Digest Book of Assault Weapons 46 (1st ed. 1986).
- Jon R. Sundra, The Most Significant Advancement in Rifle Accuracy in my Lifetime, Shooting Industry 36 (Shot Show Super Issue 1994).
- Peter Maxwell, Meet the "BOSS," New Zealand Guns, Mar./Apr. 1994, at 56-57.
- Memorandum from Richard E. Gardiner, NRA Legislative Counsel to James J. Baker, NRA Executive Director, regarding Virginia Governor's Task Force (transcript of Meeting on Assault Firearms Definition, July 8, 1993).

- 63 N.J. Stat. Ann. S 2C:39-1(w)(3) (West 1993).
- Another useful defensive configuration is the ability to select different types of ammunition "on the fly." Imagine a parent confronted with a violent burglar. Shooting the burglar might be the only way to protect nearby children. But a conventional hunting rifle cartridge would penetrate the criminal, then a wall, and might hit a child. The parent would be better off with a shotgun loaded with light birdshot--to knock the burglar down, but not penetrate a wall.

On the other hand, suppose the burglar's entry had transpired a little differently. The whole family might be huddled in one room, while the burglar kicked and banged at the creaking door. Then the optimal self-defense shot would be a slug from a shotgun -- to crash through the thick door and into the burglar.

In short, different home family defense situations require different ammunition. An excellent gun for home defense, then, would be a shotgun for which the shooter could rapidly select different loads. There is such a gun. The shotguns which are singled out by name in most "assault weapon" legislation, such as the Striker 12, are the only long guns with such beneficial features. The Striker 12 is so named because it is a shotgun with an external rotating cylinder. The shooter can quickly dial any of 12 different rounds.

- Kokalis, supra note 6.
- 66 18 U.S.C. SS 841-844 (1993).
- James Bovard, The Assault on Assault Weapons, Wall St. J., Jan. 6, 1994, at A12. Grenade launchers were used by the ATF in its attack on the Branch Davidian compound in Waco, but it is not at this point clear whether the ATF's actions were criminal. Id.
- 68 Denver Rev. Mun. Code S 38-130(b)(1)(c) (1991).
- There is no reasonable way for a person of common intelligence to know if a particular pistol was originally based on a rifle design, or based on the design of an automatic weapon. Persons attempting to comply with this language must also learn not only from what guns their pistol was designed, but also learn the design history of the ancestor guns themselves--whether the ancestor automatic firearm was "originally designed to accept magazines with a capacity of twenty-one (21) or more rounds." Denver Rev. Mun. Code S 38-130(b)(1)(c) (1991). It is irrationally burdensome to require citizens who wish to learn if their pistols are legal to research both how their pistol was designed, and how the ancestors to that pistol were "originally designed."

Having somehow discovered the design history of a pistol, a person must then attempt to discover its design mechanics--if the pistol has the same action as the ancestor rifle. In redesigning a rifle into a pistol, the designer will often modify the action (such as by shortening the piston stroke). It is irrational to require ordinary persons to reconstruct the technical development of a complex part of their firearms.

- Cf. Zobel v. Williams, 457 U.S. 55 (1982) (conferring state benefits based on historical pattern of residence, rather than current residency status, is irrational).
- The fact that the prohibited guns are descendants of military designs is often listed as a basis for the prohibition by prohibition advocates. Denver Rev. Mun. Code S 38-130(a). It is true that many of the banned guns are related in design history to military guns, but so are most other guns. Civilian guns have always been derivative of, and often identical to, military guns. Morgan, supra note 7, at 155. Thus, a prohibition on "assault weapons" because of their military design history inconsistently, and irrationally, excludes the vast majority of firearms, which are also based on military design.
- See Steven R. Myers, The Legitimate Uses of Assault Weapons, Wash. Post, Mar. 4, 1989 (letter to the editor); Patrick Mott, In Defense of the AK-47, L.A. Times, Feb. 24, 1989, at V1, col. 1 (discussing design attributes and adaptability to field use).

The statements about reliability in this section do not of course apply to every single gun that is sometimes denominated an "assault weapon." The TEC-9 pistol, for example, is often criticized for jamming at the wrong moment.

- 73 Cathy Reynolds, Headlines, Summer 1989 (newsletter).
- The accuracy advantage is maintained only out to distances of about 200 yards. Above that distance, the tighter chambering of boltaction rifles, despite the bolt-action's higher recoil, results in greater accuracy.
- Lolita C. Baldor, New Gun Ban Has Loophole, Conn. Post, Sept. 20, 1993, at A1, A4.
- Richard Gardiner, testimony at Florida Assault Weapon Commission hearings. Bovard, supra note, at A12 (stating that "San Francisco lawyer Don Kates suggested that legislators, in compiling the list of prohibited guns, appeared to have selected from •some picture book . . . of mislabeled firearms they thought looked evil.").
- Memorandum from S.C. Helsley, Asst. Dir., Invest. & Enforcement Branch, Calif. Dept. of Justice, to Patrick Kenday, Asst. Atty. Gen. 3-4, Feb. 14, 1991 (emphasis in original).
- Jacobs, supra note 42.
- 79 State v. Reed, 473 A.2d 775, 781 (Conn. 1984).
- In contrast to the rational basis test, application of the strict scrutiny/fundamental rights test would suggest that even compelling proof that "assault weapons" are frequently used in crime would not provide a constitutional basis for prohibition. See American Booksellers Assoc. v. Hudnut, 771 F.2d 323, 329-30 (7th Cir. 1985), aff'd, 475 U.S. 1001 (1986):

(W)e accept the premises of this legislation (against sexualized depictions of women as subordinate). Depictions of subordination tend to perpetuate subordination. The subordinate status of women in turn leads to affront and lower pay at work, insult and injury at home, battery and rape on the streets . . . Yet all is protected as speech, however insidious.

Similarly, the Colorado Supreme Court has explained that even the most urgent needs of law enforcement do not rise above the Constitution: "(N)o matter how necessary to law enforcement a legislative act may be, if it materially infringes upon personal liberties guaranteed by the constitution, then that legislation must fall. Grim as it may be, if effective law enforcement must be dependent upon unconstitutional statutes, then the choice of the way ahead is for the people to act or fail to act under the amendatory processes of the constitution." Arnold v. City and County of Denver, 464 P.2d 515, 517-18 (Colo. 1970) (striking vagrancy ordinance although city argued "forcefully and quite compellingly" that ordinance was necessary to fight crime. Id. at 517.).

- 81 See Cleburne, 473 U.S. at 447-50.
- United States v. Carolene Prods. Co, 304 U.S. 144, 153 (1938) (citations omitted). Justice Stone had earlier written: In ascertaining whether challenged action is reasonable, the traditional common law technique does not rule out but requires some inquiry into the social and economic data to which it is to be applied . . . The judge, then, must open his eyes to all those conditions and circumstances within the range of judicial knowledge, in the light of which reasonableness is to be measured. Harlan Stone, The Common Law in the United States, 50 Harv. L. Rev. 4, 24 (1936).
- See Englewood v. Apostolic Christian Church, 362 P.2d 172 (Colo. 1961) (stating: "It is well established that whether (a law) has a reasonable connection (to its purpose) "is a question of the determination of the judiciary." Id. at 174.).

In Colorado Springs v. Grueskin, a city imposed a number of safety restrictions on the delivery of gasoline. There was no suggestion that the fundamental rights test should be used; and the city Fire Chief testified as to the safety advantages of the restrictions. Nevertheless, challengers of the ordinance provided expert testimony that convinced the trial court that the restrictions did not effectively promote public safety. The Colorado Supreme Court upheld the trial court's striking of the ordinance, notwithstanding the Fire Chief's arguments about fire safety. 422 P.2d 384 (1967).

- Affidavit of Avi Zavaras, Colo. ex. B., at 6, Robertson v. Denver, supra note 1.
- Police Firearms Data, Colo. ex. 65, Robertson v. Denver, supra note 1. Even the low percentage of "assault weapons" was artificially inflated by police weapons retention policies initiated at the request of the City Attorney. Stipulation, Colo. ex. 66., Robertson v. Denver, supra note 1.

The author of this article represented Colorado in the trial court.

- Colo. ex. 64, Robertson v. Denver, supra note 1.
- Few Assault Weapons Seized in Akron Last Year, Akron Beacon Journal, Jan. 6, 1993 (quoting police Major Leonard Strawderman).
- Robert Hiles, Police Gunning to Boost Odds, Akron Beacon-Journal, March 13, 1989, at A9.
- Letter from Thomas E. Hickman, State's Attorney for Carroll County, to the Hon. John S. Arnick, Chairman of the House Judiciary Committee 2 (Feb. 14, 1991) (citing Ronald Banks, Baltimore Evening Sun, Feb. 11, 1991 (letter to the editor)).
- Vincent C. DeMaio et al., Assault Weapons as a Public Health Hazard, 268 JAMA 3073 (1992) (letter to the editor).
- David Alan Coia, Assault Rifles Said to Play a Small Role in Violent Crimes, Wash. Times, June 27, 1992 (quoting Torrey D. Johnston, Report on a Survey of the Use of "Assault Weapons" in California in 1990, Office of the Attorney General, California Department of Justice, (1991)) (the report, prepared in response to a request by a California State Senator, was suppressed by the California Attorney General's Office, which claimed that the report did not exist. A leaked copy was released to the media). See also Alan W. Bock, Statistical Overkill on Banned Rifles, Orange County Reg., June 28, 1992, at K4; Mike McNulty, The War on Gun Ownership Still Goes On!, Guns & Ammo, Dec. 1992, at 30-31, 90.
- David Freed, Assault Rifles are Not Heavily Used in Crimes, L.A. Times, Apr. 21, 1992, at A18.
- Jay Edward Simkin, Control Criminals, Not Guns, Wall St. J., March 25, 1991, at A10.
- Gene O'Shea, Chicago Police Back Assault Weapons Ban Approved by Senate, Southtown Economist, June 12, 1990.
- Kleck, supra note 38, at 130 (discussing J.G. Mericle, Weapons Seized During Drug Warrant Executions and Arrests, unpublished report of Metropolitan Area Narcotics Squad, Will and Grundy Counties, Illinois (1989)).
- Letter from Major Kenneth H. Kirschner, Commanding Officer, Bureau of Police Support, to Lt. Col. George H. Moore, Commanding Officer, Off. of Admin. Serv., (Mar. 11, 1993) (on file with author).
- Reply Brief of State of Colorado, at 13-15, Robertson v. Denver, No. 90CV603 (Denver Dist. Ct., Feb. 26, 1993).

- Florida Assault Weapons Commission, Assault Weapons/Crime Survey In Florida For Years 1986, 1987, 1988, 1989 (1990).
- 99 S. Rep. No. 160, 101st Cong., 1st sess. 3 (1989) (testimony of Detective Jimmy L. Trahin of the Los Angeles Police Department Firearms/Ballistics Unit).
- Letter from Thomas E. Hickman, State's Attorney for Carroll County, Maryland, to Rep. John S. Arnick, Chair of the Maryland Senate Judicial Proceedings Committee, 2 (February 14, 1991) (on file with author).
- M. Arnold, Massachusetts State Police, Firearms Identification Section, Massachusetts State Police Ballistics Records.
- M. Arnold, Massachusetts State Police, Firearms Identification Section, Massachusetts State Police Ballistic Records, March 14, 1990 & April 11, 1991.
- 103 Letter from Jess I. Galan, Criminalist, Crime Laboratory Bureau, to Richard Gardiner, Legislative Counsel, National Rifle Association.
- Memorandum from Sgt. W. Reins to Chief John T. Laux, 1 (April 3, 1989) (on file with author); Minnesota Medical Assoc. Firearm Injury Prevention Task Force, Firearm Mortality in Minnesota, Minn. Med., Mar. 1994, at 23.
- Letter from Sgt. Brooks Harris, Crime Analysis Section, Nashville P.D. to Sen. Harlan Matthews (June 2, 1993) (on file with author).
- Nicholas Veronis, Newark Survey Finds Assault Rifle Used in only One Shooting in '80s, Star-Ledger (Newark, N.J.), May 16, 1990, at 15.
- Testimony of Dept. Chief Joseph Constance, before the Maryland Senate Judicial Proceedings Committee 3 (March 7, 1991).
- Dan Weissman, Florio Urges Ban on Assault Rifles, Stresses His Support for Abortion, Star-Ledger (Newark, N.J.), July 18, 1989, at 15.
- 109 Iver Peterson, Both Sides Say Trenton's Ban on Assault Rifles Has Little Effect on Crime, N.Y. Times, June 20, 1993.
- Handguns, not Assault Rifles, are NYC Weapon of Choice, White Plains Reporter- Dispatch, Mar. 27, 1989, at A8-A9.
- Frederic Dicker, Real Story on Assault Weapons is Hit & Myth, N.Y. Post, Jan. 10, 1994, at 14 (discussing unpublished data from New York State Division of Criminal Justice Services).
- Joe Hughes, Smaller Guns are •Big Shots' with the Hoods, San Diego Union, Aug. 29, 1991.
- Morgan, supra note 7, at 151.
- Margaret Edds, Assault Weapons Rarely Used in Crimes, Gun-control Panel Told, Virginia Pilot & Ledger-Star, Aug. 4, 1993.
- Kent Jenkins, Jr., Calls for Ban Boost Assault Rifle Sales: Weapons not Considered Factor in Killings, Wash. Post, Mar. 6, 1989, at B1.

- K. Bea, Cong. Research Svc. Report for Congress--"Assault Weapons:" Military Style Semiautomatic Firearms Facts and Issues 18, table 5 (Cong. Research. Svc., May 13, 1992) (rev. ed. June 4, 1992) (citing G.R. Wilson, Chief, Firearms Section, Metropolitan Police Dept., Jan. 21, 1992).
- Morgan, supra note 8, at 152.
- In 1990, 3.7% of homicides were perpetrated with rifles. Uniform Crime Reports 17 (1991).
- Telephone Interview with L. Behn, FBI Technical Information Specialist (Mar. 25, 1993) (on file with author).
- Alan S. Krug, The "Assault Weapon" Issue 16-17 (National Rifle Assoc. Publications, 1993 ed.) (using FBI, state and local police agency data).
- George T. Williams & Charles B. Moorman, A Decade of Peace Officers Murdered in California: The 1980s, 46 J. Calif. Law Enf. 1, 6 (Feb. 1991).
- 122 Id.
- 123 Kleck, supra note 38, at 78-79.
- Jim Stewart & Andrew Alexander, Assault Guns Muscling in on Front Lines of Crime, Atlanta Journal-Atlanta Constitution, May 21, 1989, at A1, A8.
- See supra note 82 and accompanying text.
- "Assault weapons" were also involved in 11% of traces relating to the Gun Control Act of 1968 (which criminalizes non-violent behavior such as the sale of a handgun to a person from another state, and imposes various record-keeping requirements on firearms dealers), and in 30% of the very small number of organized crime traces conducted by BATF. See Stewart, supra note 130.
- See Stewart, supra note 124.
- Letter from Daniel M. Hartnett, Bureau of Alcohol, Tobacco and Firearms, Letter to Rep. Richard T. Schulze 3 (Mar. 31, 1992) (on file with author).
- Kleck, supra note 38, at 75. To many people, it may seem surprising that the use of "assault weapons" in Washington, D.C. is so low. It should be noted that since Washington, D.C. passed its "assault weapon" liability law in 1990, which allows anyone who is injured by an "assault weapon" in Washington (even a criminal) to sue the manufacturer, not a single suit has been brought.
- Kleck supra note 38, at 75 (citing 1990 BATF Report).
- See Bea, supra note 116.
- 132 Arnold v. Cleveland, 616 N.E.2d 163, 172 (Ohio 1993) (citations omitted).

- See Fafarman, supra note, at 189 (first Winchester semiautomatic in 1903 and first Remington semiautomatic in 1906); Harold F. Williamson, Winchester: The Gun that Won the West 13 (1952) (Volcanic Company was producing carbines which could fire 30 rounds without reloading in 1856).
- It should not be surprising that the guns are rarely used in crimes. All rifles and shotguns are difficult to conceal. So-called "assault pistols," which are quite large for handguns, are also difficult to conceal.
- Denver, Colo. Rev. Mun. Code, S 38-130(a) (1989). Similarly, the city of Cleveland's ban on "assault weapons" was predicated on the finding that "the primary purpose of assault weapons is antipersonnel" Arnold, 116 N.E.2d at 172 (citing Cleveland, Ohio Ord. No. 415-89, S 628.01). California's ban includes the legislative finding: "The Legislature has restricted the assault weapons . . . based upon the finding . . . that its function as a legitimate sports or recreational firearm is substantially outweighed by the danger that it can also be used to kill or injure human beings." Cal. Penal Code S 12275.5 (Deering 1994).
- Bureau of Alcohol, Tobacco and Firearms, Report and Recommendation of the ATF Working Group on the Importability of Certain Semiautomatic Rifles (1989).
- Of the semiautomatics evaluated by Lewis, virtually every one was praised for its utility in survival, law enforcement, or other civil defense type situations. The guns were also touted for day-to-day home defense, in part because of their reliability, in part because of their simplicity and ruggedness (meaning that persons who are not experts in gun care can maintain the firearms safely), in part because of their low recoil (making them easier for persons without great upper body strength to control), and in part because of their intimidating appearance, which could convince an attacker to flee or surrender without a fight. For example, the Steyr AUG-SA has "excellent bio-engineering," a superior and innovative safety, is easy to maneuver for self-defense, and hard for an attacker to take away. Its barrel is so well made that no amount of target practice will wear it out. The gun never needs cleaning, even if thrown in mud or snow. The Gun Digest Book of Assault Weapons 46-49 (Jack Lewis ed., 1st ed., 1986).

The SIG SG-551 SP carbine works "like a fine Swiss watch" and does not have "any notable recoil." Its "fast second shot" is useful for defending livestock from coyotes, and is "perfectly suitable" for police and civilian defensive roles. The Gun Digest Book of Assault Weapons 201-13 (Jack Lewis ed., 2d ed., 1989).

The M11 pistol finds its "best role as a home defense weapon," in part because its intimidating appearance would force "most burglars and intruders to consider instant surrender." Id. at 71.

- Most of the banned rifles are used in target competition. Some of these rifles, such as the Colt Sporter and the Heckler & Koch HK-91 are generally regarded as among the finest target rifles in the world.
- See, e.g., Richard M. Brown, No Duty to Retreat (1991).
- 140 Id. at 6.
- Such an exemption could not be defended on the grounds that the guns can only used by persons with special training; "assault weapon" prohibitionists may complain that the guns are "very easy to use." Reynolds, supra note.
- People v. Montoya, 647 P.2d 1203, 1205-06 (Colo. 1982).

20 JCL 381

© 2023 Thomson Reuters. No claim to original U.S. Government Works.

EXHIBIT 9



This story was produced in partnership with <u>VICE News</u>.

he Mongolian Boys Society was out for revenge. Six members of the Fresno, California, criminal gang huddled in a vacation rental in





November 2019, cleaning their guns in preparation to retaliate against the Asian Crips for the suspected killing of one of their own.



According to court records, one of the "triggermen" carried a Glock pistol outfitted with an auto sear, a small device the size of a thimble that transformed his semiautomatic weapon into a machine gun capable of firing 20 rounds per second. Around 8 p.m., the crew drove across town to a palm tree-lined street. Moments later, in one of the backyards, they opened fire on a gathering of people. Bullets sprayed through the crowd, killing four and wounding six.

But the house was not a rival gang den; police later determined that a family had gathered there to watch football together. Six members of the Mongolian Boys Society were arrested for their alleged involvement in the mass shooting. Three face the death penalty.

Read Next



Watch: Machine Gun Conversion Kits Are 'Everywhere,' Feds Warn

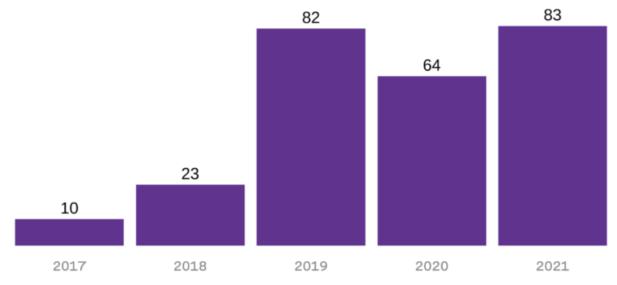
With VICE News, we document the rise of the auto sear, a small, cheap device that converts a semiautomatic firearm into an automatic one. Court records show that auto sears have been used in robberies, homicides, and extremist attacks.

An auto sear — the most common automatic conversion device — transforms a semiautomatic gun into a weapon capable of emptying an entire magazine with a single pull of the trigger. Also known as switches or chips, auto sears have been around since the '70s but are exceedingly tough to acquire legally in the United States, where machine guns cannot legally be owned without a special license. In recent years, these small metal or plastic devices have exploded in popularity on the black market and gained a particular cachet among criminals and antigovernment extremists. Last year, members of the Boogaloo Boys, an accelerationist movement that hopes to spark a second civil war, <u>used</u> weapons equipped with auto sears to attack a federal courthouse.

An investigation by The Trace and VICE News found that federal prosecutions involving automatic conversion devices have spiked in recent years. From 2017 to 2021, the number of cases jumped from 10 to 83, according to our exclusive nationwide analysis of court filings. We found over 260 cases filed in the last five years, including robberies, assaults, and murders, with over 1,000 devices recovered. The government has not previously compiled this data, and the actual number of illegally converted machine guns on the streets is likely far higher.

Federal Converted Machine Gun Cases Have Increased Dramatically

We found over 260 federal cases filed in the last five years including robberies, assaults, and murders, with over 1,000 automatic conversion devices recovered.



Source: Federal court records compiled by The Trace and Vice

Olga Pierce

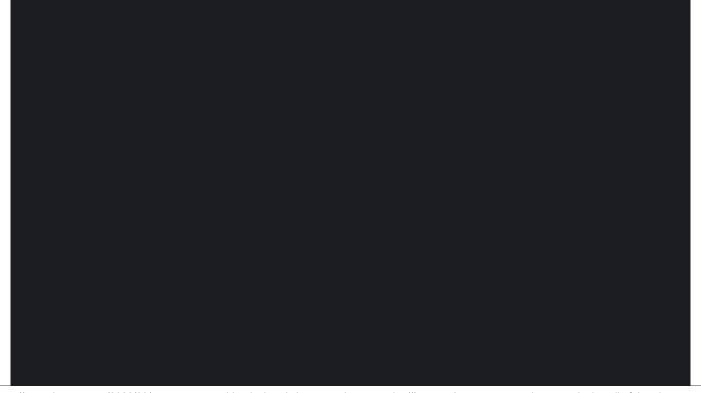
The Bureau of Alcohol, Tobacco, Firearms and Explosives, the federal agency responsible for policing guns in the U.S., said it seized 1,500 weapons modified with auto sears in 2021, a staggering increase over 2020, when only 300 were recovered.

"Auto sears are everywhere on the street right now," said Jefferey Boshek, a 21-year ATF veteran who now serves as the special agent in charge of the Dallas Field Division. "They're one of the scariest things we've dealt with since I became an agent."

The ascent of the auto sear has been propelled by its availability and ease of use. The American market is largely supplied by China, where manufacturers sell the devices on websites like Alibaba and Wish.com directly to consumers, law enforcement officials say. Auto sears are often advertised as airsoft parts or tools and shipped with false documentation and packaging labels. They can also be created using a 3D printer. Once in a person's hands, installation can take just seconds and requires scant technical knowledge or tools.

"It is so simple," said Rick Vasquez, the former head of the ATF's Firearms

Technology Division. "The information is out there, and the knowledge to do it is
out."



spokesperson did not respond to repeated requests for comment.

In September, a Houston man <u>opened fire</u> with a Glock pistol modified with an auto sear after police showed up at his front door to arrest him on a narcotics warrant. One officer was <u>killed</u> and another wounded. Four months later, a convicted felon with a converted Glock wounded three more Houston officers in a gun battle in broad daylight. The suspect managed to escape, but police <u>arrested him</u> later that same day at his home, where they also found a cache of guns, machine gun components, and a 3D printer.

To gang members, auto sears are an advantageous new accessory that can inflict incredible damage and intimidate enemies, especially when paired with high-capacity magazines. One California ATF agent, who declined to be named because he was not authorized to speak on the agency's behalf, said that in his first decade on the job, he hardly ever came across machine guns; now he sees firearms that have been converted with auto sears "all the time." Some criminals, the agent added, have been caught with the devices on ghost guns — untraceable firearms that can be made at home or obtained without a background check.

For nearly 90 years the federal government waged an aggressive campaign to shrink the pool of automatic weapons available to the public.

In 1934, after several high-profile crimes involving machine guns, Congress passed the National Firearms Act, which required anyone who owned a fully automatic weapon to register it with the government and pay a \$200 tax, equivalent to about \$4,000 today. This significantly drove up the cost and difficulty of owning one.

Industrious gunsmiths searched for workarounds. In the '70s, conversion devices started surfacing in niche gun communities but the general public rarely sought

them out. It became more difficult to obtain an auto sear in 1981, when the ATF ruled that possessing one was, in legal terms, the same as owning a machine gun, whether or not the device was installed on a firearm. Having an auto sear without the proper federal license, which requires an extensive background check and costly fees, can carry a 10-year federal prison sentence.



The auto sear overrides a handgun's trigger bar, allowing it to fire multiple times with the single pull of a trigger.

Five years later, Congress passed the Firearms Owners Protection Act, blocking the import or manufacture of any new automatic weapons in the U.S.

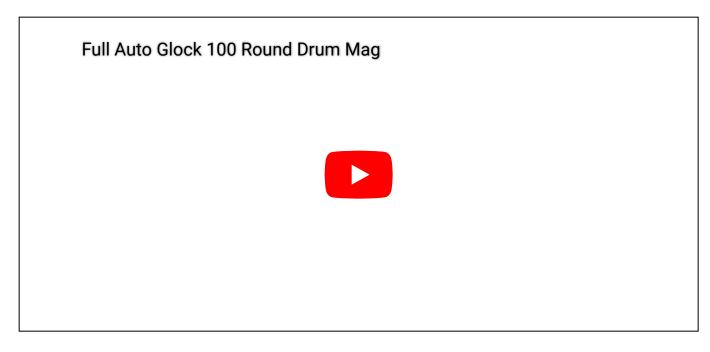
The 1986 law created an extremely limited pool of legal machine guns, and the weapons now command <u>sky-high prices</u>. Even basic models can cost \$10,000 online. More sought-after weapons, like World War II-era machine guns, can run six figures.

But obtaining an illegal machine gun is no longer so expensive or logistically challenging. Over the last five years, advances in low-cost manufacturing tools, like 3D printers, plus global commerce on the internet, have combined to create a vast black market of illegal machine gun makers, dealers, and traffickers. With an

4/19/23, 12:3© മാട 1:21-cv-04595 Document #: 98-Autoiseds: നിഷ്/ Ret/മ്മിൻ നിഷ്യരം മിഷ് Goof 304 PageID #:1753

auto sear, anyone willing to break the law can effectively create a machine gun for as little as \$20.

Sales of auto sears have also been popularized by YouTubers and Instagrammers, whose demonstrations of the devices <u>have racked up millions of views</u>.

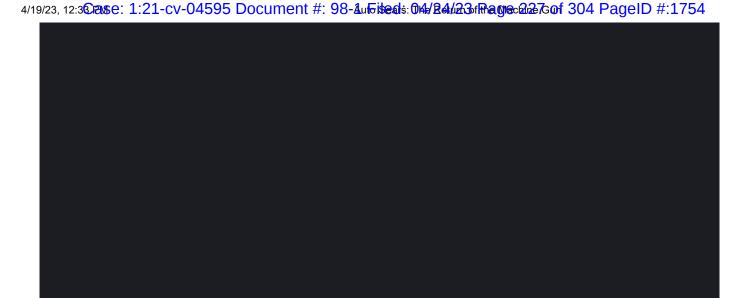


"People don't sell drugs, for the most part, outside of the dark web — they're not on Instagram selling crack cocaine or powder cocaine, but they are out there selling machine guns now," said Boshek, the ATF agent in Dallas.

Boshek said the wide availability of auto sears has created an arms race on the streets, and that his division in Texas is inundated with cases — including homicides and robberies — involving the devices.

At the Ohio home of a <u>self-described incel</u> charged last July with plotting to massacre sorority members, sheriff's deputies discovered a modified Glock machine gun stashed in a heating vent. In May 2021, federal agents in Florida seized two converted machine guns from a convicted felon linked to the murder of a 20-year-old mother.

| • Read Next | | | |
|-------------|--|--|--|
| | | | |
| | | | |
| | | | |



weapons had been modified into machine guns. "We go full-auto everything," the traffickers said.

"If you don't have one, pretty much you're butt naked," said a former arms trafficker whose name has been withheld to protect his identity. He said demand for auto sears skyrocketed around 2020, as word got out on the street about the effectiveness of conversion devices. He claims to have modified and sold thousands of Glock machine guns, commanding between \$500 and \$3,000 per gun.

He says the shooting death of a close friend motivated him to take his business above board and apply for a dealer license from the ATF.

In 2019, the ATF opened an investigation into a Michigan resident who ordered auto sears through the mail. Agents say the man, a convicted felon on probation for selling machine guns, openly bragged about selling switches in a music video and ordered more than 20 conversion devices from a company located in Shenzhen, China.

According to federal court documents, a separate investigation found that the company had sold auto sears to American customers 2,400 times over a 15-month period, for as cheap as \$19.98 per device.

The U.S has become an increasingly lucrative market for auto sears. Many smugglers operate out of China, court records show, where conversion devices can be manufactured at low cost and shipped to American customers falsely labeled as innocuous items. In 2019, officials at Los Angeles International Airport intercepted more than 200 packages from China containing auto sears. The packages were labeled "multitool switch" or "screwdriver."

"It scares me for all of us," said Nancy O'Malley, the <u>district attorney</u> for Alameda County in California. She says officers in her district have started coming across shipments of switches: "If there is a box of switches, then we know a modified weapon is in the community."



Police and emergency vehicles on the scene of the November 2019 mass shooting in Fresno involving an auto sear that left ten people shot. Larry Valenzuela/Getty

The problem has prompted Homeland Security Investigations to form a task force with Customs and Border Protection, the United States Postal Inspection Service, the ATF, and Chinese counter-smuggling officials intended to stem the flow of auto sears from China into the U.S.

"China is very good at identifying items, whether it be auto sears or sneakers, and expanding those markets to sell them," said Joe Lestrange, the division chief of public safety and border security at Homeland Security Investigations.

In 2019, the agency launched Operation TriggerFish, an initiative to track auto sear deliveries in the U.S. back to their points of origins. Homeland Security worked with international authorities to shut down production of switches in the Guangdong Province of China. It was a blueprint modeled after the government's war on blackmarket <u>fentanyl smuggling</u>.

Lestrange said that in the last three years, Homeland Security had seized 4,348 auto sears and opened up over 600 investigations related to the devices. While the agency regarded those seizures as successes, he said auto sears continue to show up in criminal investigations at an alarming rate. Stopping the flow of the devices, he added, depends on gathering new intelligence about how auto sears are entering the country. "We don't know what we don't know," said Lestrange.

The spike in smuggling has pushed U.S. senators to ask for answers. In October 2021, Senators Amy Klobuchar and Cory Booker wrote a letter asking the Department of Justice how it plans to address overseas smuggling, as well as for statistics on seizures.

Experts say auto sears are particularly sought after by anti-government extremists, who see amassing military grade weapons as a way to resist the government.

In August 2020, an FBI agent posing as a foreign terrorist purchased a 3D-printed AR-15 auto sear from <u>Timothy John Watson</u>, a West Virginia man selling conversion devices as "portable wall hangers" online. According to court documents, authorities seized 903 conversion devices from Watson's business, which had ties to the Boogaloo Boys.

One of those devices was sold to Steven Carrillo, a 32-year old Air Force staff sergeant and Boogaloo adherent who'd converted his homemade AR-15 into a machine gun. On May 29, 2020, during a protest in Oakland against the murder of

George Floyd, Carrillo launched an ambush on two federal security officers, killing one.

The following month, Carrillo struck again. He texted his fellow Boogaloo Boys to "kit up and get here," before shooting at three California police officers when they arrived at this property. One was killed in the attack.



A motorcade accompanies the hearse containing the coffin of Santa Cruz County Sheriff's Sgt. Damon Gutzwiller, who was fatally shot by extremist Steven Carrillo. Shmuel Thaler/AP

Carrillo was apprehended by authorities after being wounded in the shooting, but not before he wrote "boog" in his own blood on the trunk of his stolen car.

Rachel Rivas, a senior policy analyst at the Southern Poverty Law Center, said farright and anti-government extremists seek machine guns because they are woven into much of their apocalyptic and conspiratorial ideology.

"There is a worldview that there will be a coming moment in which they have to take up arms against the government and to do that they will need heavy weaponry," she said. "It's the ultimate symbol of personal freedom and individual rights; to the extreme."

Firearms are the weapon of choice for extremists to carry out violence. According to a recent report from the Anti-Defamation League, 75 percent of extremismrelated deaths over the last decade were shootings.

"It's so much easier to have a full-auto firearm than to make weaponized anthrax," said Mark Pitcavage, a senior research fellow at the ADL. He said that extremists represent a small sliver of criminal activity, but the types of attacks they carry out warrant concern. "You really do have to take it seriously. Some may argue it's only a matter of time before we see one of these shooting sprees actually be conducted with full-auto weapons."

Additional reporting by Brian Freskos

Alain Stephens 🔰





Alain is a staff writer covering developments in firearms technology and the ATF. His investigations into auto sears, toy guns, and ghost guns for The Trace have led to congressional action. A military veteran and gun owner, Alain did tours at inewsource and Texas Standard, where his work led to important public safety, civil rights, and criminal justice reforms.

Keegan Hamilton 🔰





Keegan Hamilton is a correspondent, podcast host, and Emmy-nominated producer at VICE News, where he covers organized crime, prisons, and the drug trade.

The only newsroom dedicated to reporting on gun violence.

Your tax-deductible donation to The Trace will directly support nonprofit journalism on gun violence and its effects on our communities.

EXHIBIT 10

83 FR 66514-01, 2018 WL 6738526(F.R.)
RULES and REGULATIONS
DEPARTMENT OF JUSTICE
Bureau of Alcohol, Tobacco, Firearms, and Explosives
27 CFR Parts 447, 478, and 479
[Docket No. 2018R-22F; AG Order No. 4367-2018]
RIN 1140-AA52

Bump-Stock-Type Devices

Wednesday, December 26, 2018

AGENCY: Bureau of Alcohol, Tobacco, Firearms, and Explosives; Department of Justice.

*66514 ACTION: Final rule.

SUMMARY: The Department of Justice is amending the regulations of the Bureau of Alcohol, Tobacco, Firearms, and Explosives (ATF) to clarify that bump-stock-type devices—meaning "bump fire" stocks, slide-fire devices, and devices with certain similar characteristics—are "machineguns" as defined by the National Firearms Act of 1934 and the Gun Control Act of 1968 because such devices allow a shooter of a semiautomatic firearm to initiate a continuous firing cycle with a single pull of the trigger. Specifically, these devices convert an otherwise semiautomatic firearm into a machinegun by functioning as a self-acting or self-regulating mechanism that harnesses the recoil energy of the semiautomatic firearm in a manner that allows the trigger to reset and continue firing without additional physical manipulation of the trigger by the shooter. Hence, a semiautomatic firearm to which a bump-stock-type device is attached is able to produce automatic fire with a single pull of the trigger. With limited exceptions, the Gun Control Act, as amended, makes it unlawful for any person to transfer or possess a machinegun unless it was lawfully possessed prior to the effective date of the statute. The bump-stock-type devices covered by this final rule were not in existence prior to the effective date of the statute, and therefore will be prohibited when this rule becomes effective. Consequently, under the final rule, current possessors of these devices will be required to destroy the devices or abandon them at an ATF office prior to the effective date of the rule.

DATES: This rule is effective March 26, 2019.

FOR FURTHER INFORMATION CONTACT: Vivian Chu, Office of Regulatory Affairs, Enforcement Programs and Services, Bureau of Alcohol, Tobacco, Firearms, and Explosives, U.S. Department of Justice, 99 New York Ave. NE, Washington, DC 20226; telephone: (202) 648-7070.

SUPPLEMENTARY INFORMATION:

- I. Executive Summary
- A. Summary of the Regulatory Action
- B. Summary of Costs and Benefits
- II. Background
- A. Regulatory Context
- B. Las Vegas Shooting

- C. Advance Notice of Proposed Rulemaking
- III. Notice of Proposed Rulemaking
- A. Prior Interpretations of "Single Function of the Trigger" and "Automatically"
- B. Re-Evaluation of Bump-Stock-Type Devices
- C. Proposed Definition of "Single Function of the Trigger"
- D. Proposed Definition of "Automatically"
- E. Proposed Clarification That the Definition of "Machinegun" Includes Bump-Stock-Type Devices
- F. Amendment of 27 CFR 479.11
- G. Amendment of 27 CFR 478.11
- H. Amendment of 27 CFR 447.11
- IV. Analysis of Comments and Department Responses for Proposed Rule
- A. Comments Generally Supporting the Rule
- B. Particular Reasons Raised in Support of the Rule
- C. Comments Generally Opposing the Rule
- D. Specific Issues Raised in Opposition to the Rule
- E. ATF Suggested Alternatives
- F. Other Alternatives
- G. Proposed Rule's Statutory and Executive Order Review
- H. Affected Population
- I. Costs and Benefits
- J. Regulatory Flexibility Act
- K. Miscellaneous Comments
- L. Comments on the Rulemaking Process
- V. Final Rule
- VI. Statutory and Executive Order Review
- A. Executive Orders 12866, 13563, and 13771
- B. Executive Order 13132
- C. Executive Order 12988

- D. Regulatory Flexibility Act
- E. Small Business Regulatory Enforcement Fairness Act of 1996
- F. Congressional Review Act
- G. Unfunded Mandates Reform Act of 1995
- H. Paperwork Reduction Act of 1995

I. Executive Summary

A. Summary of the Regulatory Action

The current regulations at §§ 447.11, 478.11, and 479.11 of title 27, Code of Federal Regulations (CFR), contain definitions for the term "machinegun." [FN1] The definitions used in 27 CFR 478.11 and 479.11 match the statutory definition of "machinegun" in the National Firearms Act of 1934 (NFA), as amended, and the Gun Control Act of 1968 (GCA), as amended. Under the NFA, the term "machinegun" means "any weapon which shoots, is designed to shoot, or can be readily restored to shoot, automatically more than one shot, without manual reloading, by a single function of the trigger." 26 U.S.C. 5845(b). The term "machinegun" also includes "the frame or receiver of any such weapon" or any part or combination of parts designed and intended "for use in converting a weapon into a machinegun," and "any combination of parts from which a machinegun can be assembled if such parts are in the possession or under the control of a person." Id. This definition uses the key terms "single function of the trigger" and "automatically," but these terms are not defined in the statutory text.

Regulations implementing the relevant statutes spell the term "machine gun" rather than "machinegun." E.g., 27 CFR 478.11, 479.11. For convenience, this notice uses "machinegun" except when quoting a source to the contrary.

The definition of "machinegun" in 27 CFR 447.11, promulgated pursuant to the portion of section 38 of the Arms Export Control Act (AECA) (22 U.S.C. 2778) delegated to the Attorney General by section 1(n)(ii) of Executive Order 13637 (78 FR 16129), is similar. Currently, the definition of "machinegun" in § 447.11 provides that a "'machinegun', 'machine pistol', 'submachinegun', or 'automatic rifle' is a firearm originally designed to fire, or capable of being fired fully automatically by a single pull of the trigger."

In 2006, ATF concluded that certain bump-stock-type devices qualified as machineguns under the NFA and GCA. Specifically, ATF concluded that a device attached to a semiautomatic firearm that uses an internal spring to harness the force of a firearm's recoil so that the firearm shoots more than one shot with a single pull of the trigger is a machinegun. Between 2008 and 2017, however, ATF also issued classification decisions concluding that other bump-stock-type devices were not machineguns, primarily because the devices did not rely on internal springs or similar mechanical parts to channel recoil energy. Decisions issued during that time did not include extensive legal analysis relating to the definition of "machinegun." ATF undertook a review of its past classifications and determined that those conclusions did not reflect the best interpretation of "machinegun" under the NFA and GCA.

ATF decided to promulgate a rule that would bring clarity to the definition of "machinegun"—specifically with respect to the terms "automatically" and "single function of the trigger," as those terms are used to define "machinegun." As an initial step in the process of promulgating a rule, on December 26, 2017, the Department of Justice (Department) published in the Federal *66515 Register an advance notice of proposed rulemaking titled "Application of the Definition of Machinegun to 'Bump Fire' Stocks and Other Similar Devices." 82 FR 60929. Subsequently, on March 29, 2018, the Department published in the Federal Register a notice of proposed rulemaking (NPRM) titled "Bump-Stock-Type Devices." 83 FR 13442.

The NPRM proposed to amend the regulations at 27 CFR 447.11, 478.11, and 479.11 to clarify that bump-stock-type devices are "machineguns" as defined by the NFA and GCA because such devices allow a shooter of a semiautomatic firearm to

initiate a continuous firing cycle with a single pull of the trigger. Specifically, these devices convert an otherwise semiautomatic firearm into a machinegun by functioning as a self-acting or self-regulating mechanism that harnesses the recoil energy of the semiautomatic firearm in a manner that allows the trigger to reset and continue firing without additional physical manipulation of the trigger by the shooter. Hence, a semiautomatic firearm to which a bump-stock-type device is attached is able to produce automatic fire with a single pull of the trigger. 83 FR at 13447-48.

The NPRM proposed regulatory definitions for the statutory terms "single function of the trigger" and "automatically," and amendments of the regulatory definition of "machinegun" for purposes of clarity. Specifically, the NPRM proposed to amend the definitions of "machinegun" in §§ 478.11 and 479.11, define the term "single function of the trigger" to mean "single pull of the trigger," and define the term "automatically" to mean "as the result of a self-acting or self-regulating mechanism that allows the firing of multiple rounds through a single pull of the trigger." 83 FR at 13447-48. The NPRM also proposed to clarify that the definition of "machinegun" includes a device that allows a semiautomatic firearm to shoot more than one shot with a single pull of the trigger by harnessing the recoil energy of the semiautomatic firearm to which it is affixed so that the trigger resets and continues firing without additional physical manipulation of the trigger by the shooter (commonly known as bump-stock-type devices). Id. at 13447. Finally, the NPRM proposed to harmonize the definition of "machinegun" in § 447.11 with the definitions in 27 CFR parts 478 and 479, as those definitions would be amended. Id. at 13448.

The goal of this final rule is to amend the relevant regulatory definitions as described above. The Department, however, has revised the definition of "single function of the trigger" to mean "single pull of the trigger" and analogous motions, taking into account that there are other methods of initiating an automatic firing sequence that do not require a pull. This final rule also informs current possessors of bump-stock-type devices of the proper methods of disposal, including destruction by the owner or abandonment to ATF.

B. Summary of Costs and Benefits

ATF estimates the total undiscounted cost of this rule at \$312.1 million over 10 years. The total 7% discount cost is estimated at \$245.5 million, and the discounted costs would be \$32.8 million and \$35.0 million, annualized at 3% and 7% respectively. The estimate includes costs to the public for loss of property (\$102.5 million); costs of forgone future production and sales (\$198.9 million); costs of disposal (\$9.4 million); and government costs (\$1.3 million). Unquantified costs include potential loss of wages for employees of bump-stock-type device manufacturers, notification to bump-stock-type device owners of the need to destroy the devices, and loss of future usage by the owners of bump-stock-type devices. ATF did not calculate any cost savings for this final rule.

This final rule clarifies that bump-stock-type devices are machineguns that are subject to the NFA and GCA. The provisions of those statutes addressing machineguns are designed to increase public safety by, among other things, limiting legal access to them. Consistent with the NFA and GCA, therefore, a desired outcome of this final rule is increased public safety.

II. Background

A. Regulatory Context

The Attorney General is responsible for enforcing the NFA, as amended, and the GCA, as amended.[FN2] This responsibility includes the authority to promulgate regulations necessary to enforce the provisions of the NFA and GCA. See 18 U.S.C. 926(a); 26 U.S.C. 7801(a)(2)(A), 7805(a). The Attorney General has delegated the responsibility for administering and enforcing the NFA and GCA to the Director of ATF, subject to the direction of the Attorney General and the Deputy Attorney General. See 28 CFR 0.130(a)(1)-(2). Accordingly, the Department and ATF have promulgated regulations implementing both the NFA and the GCA. See 27 CFR parts 478, 479. In particular, ATF for decades promulgated rules governing "the procedural and substantive requirements relative to the importation, manufacture, making, exportation, identification and registration of, and the dealing in, machine guns." 27 CFR 479.1; see, e.g., United States v. Dodson, 519 F. App'x 344, 348-49 & n.4 (6th Cir. 2013) (acknowledging ATF's role in interpreting the NFA's definition of "machinegun"); F.J. Vollmer Co. v. Higgins, 23 F.3d

448, 449-51 (D.C. Cir. 1994) (upholding an ATF determination regarding machinegun receivers). Courts have recognized ATF's leading regulatory role with respect to firearms, including in the specific context of classifying devices as machineguns under the NFA. See, e.g., York v. Sec'y of Treasury, 774 F.2d 417, 419-20 (10th Cir. 1985).

NFA provisions still refer to the "Secretary of the Treasury." 26 U.S.C. ch. 53. However, the Homeland Security Act of 2002, Public Law 107-296, 116 Stat. 2135, transferred the functions of ATF from the Department of the Treasury to the Department of Justice, under the general authority of the Attorney General. 26 U.S.C. 7801(a)(2); 28 U.S.C. 599A(c)(1). Thus, for ease of reference, this notice refers to the Attorney General.

The GCA defines "machinegun" by referring to the NFA definition, [FN3] which includes "any weapon which shoots, is designed to shoot, or can be readily restored to shoot, automatically more than one shot, without manual reloading, by a single function of the trigger." 26 U.S.C. 5845(b). The term "machinegun" also includes "the frame or receiver of any such weapon" or any part, or combination of parts, designed and intended "for use in converting a weapon into a machinegun," and any combination of parts from which a machinegun can be assembled if such parts are in the possession or under the control of a person. Id. With limited exceptions, the GCA prohibits the transfer or possession of machineguns under 18 U.S.C. 922(o).

3 18 U.S.C. 921(a)(23).

In 1986, Congress passed the Firearms Owners' Protection Act (FOPA), Public Law 99-308, 100 Stat. 449, which included a provision that effectively froze the number of legally transferrable machineguns to those that were registered before the effective date of the statute. 18 U.S.C. 922(o). Due to the fixed universe of "pre-1986" machineguns that may be lawfully transferred by nongovernmental entities, the value of those machineguns has steadily increased over time. This price premium on automatic weapons has spurred inventors and manufacturers to develop firearms, triggers, and other devices that permit shooters to use semiautomatic rifles to replicate *66516 automatic fire without converting these rifles into "machineguns" under the NFA and GCA. ATF began receiving classification requests for such firearms, triggers, and other devices that replicate automatic fire beginning in 1988. ATF has noted a significant increase in such requests since 2004, often in connection with rifle models that were, until 2004, defined as "semiautomatic assault weapons" and prohibited under the Public Safety and Recreational Firearms Use Protection Act, 18 U.S.C. 921(a)(30) (sunset effective Sept. 13, 2004).

ATF received classification requests pertaining to bump-stock-type devices. Shooters use bump-stock-type devices with semiautomatic firearms to accelerate the firearms' cyclic firing rate to mimic automatic fire. These devices replace a rifle's standard stock and free the weapon to slide back and forth rapidly, harnessing the energy from the firearm's recoil either through a mechanism like an internal spring or in conjunction with the shooter's maintenance of pressure (typically constant forward pressure with the non-trigger hand on the barrel-shroud or fore-grip of the rifle, and constant rearward pressure on the device's extension ledge with the shooter's trigger finger).

In 2006, ATF concluded that certain bump-stock-type devices qualified as machineguns under the NFA and GCA. Specifically, ATF concluded that devices attached to semiautomatic firearms that use an internal spring to harness the force of the recoil so that the firearm shoots more than one shot with a single pull of the trigger are machineguns. Between 2008 and 2017, however, ATF also issued classification decisions concluding that other bump-stock-type devices were not machineguns, including a device submitted by the manufacturer of the bump-stock-type devices used in the 2017 Las Vegas shooting discussed below. Those decisions indicated that semiautomatic firearms modified with these bump-stock-type devices did not fire "automatically," and thus were not "machineguns," because the devices did not rely on internal springs or similar mechanical parts to channel recoil energy. (For further discussion of ATF's prior interpretations, see Part III.A.) Because ATF has not regulated these certain types of bump-stock-type devices as machineguns under the NFA or GCA, they have not been marked with a serial number or other identification markings. Individuals, therefore, have been able to legally purchase these devices without undergoing background checks or complying with any other Federal regulations applicable to firearms.

B. Las Vegas Shooting

On October 1, 2017, a shooter attacked a large crowd attending an outdoor concert in Las Vegas, Nevada. By using several AR-type rifles with attached bump-stock-type devices, the shooter was able to fire several hundred rounds of ammunition in a short period of time, killing 58 people and wounding approximately 500. The bump-stock-type devices recovered from the scene included two distinct, but functionally equivalent, model variations from the same manufacturer. These types of devices were readily available in the commercial marketplace through online sales directly from the manufacturer, and through multiple retailers.

The Las Vegas bump-stock-type devices, as well as other bump-stock-type devices available on the market, all utilize essentially the same functional design. They are designed to be affixed to a semiautomatic long gun (most commonly an AR-type rifle or an AK-type rifle) in place of a standard, stationary rifle stock, for the express purpose of allowing "rapid fire" operation of the semiautomatic firearm to which they are affixed. They are configured with a sliding shoulder stock molded (or otherwise attached) to a pistol-grip/handle (or "chassis") that includes an extension ledge (or "finger rest") on which the shooter places the trigger finger while shooting the firearm. The devices also generally include a detachable rectangular receiver module (or "bearing interface") that is placed in the receiver well of the device's pistol-grip/handle to assist in guiding and regulating the recoil of the firearm when fired. Bump-stock-type devices, including those with the aforementioned characteristics, are generally designed to channel recoil energy to increase the rate of fire of a semiautomatic firearm from a single trigger pull. Accordingly, when a bump-stock-type device is affixed to a semiautomatic firearm, the device harnesses and directs the firearm's recoil energy to slide the firearm back and forth so that the trigger automatically re-engages by "bumping" the shooter's stationary finger without additional physical manipulation of the trigger by the shooter.

Following the mass shooting in Las Vegas, ATF received correspondence from members of the United States Congress, as well as nongovernmental organizations, requesting that ATF examine its past classifications and determine whether bump-stock-type devices available on the market constitute machineguns under the statutory definition. Consistent with its authority to "reconsider and rectify" potential classification errors, Akins v. United States, 312 F. App'x 197, 200 (11th Cir. 2009) (per curiam), ATF reviewed its earlier determinations for bump-stock-type devices issued between 2008 and 2017 and concluded that those determinations did not include extensive legal analysis of the statutory terms "automatically" or "single function of the trigger." The Department decided to move forward with the rulemaking process to clarify the meaning of these terms, which are used in the NFA's statutory definition of "machinegun."

C. Advance Notice of Proposed Rulemaking

On December 26, 2017, the Department, as an initial step in the process of promulgating a Federal regulation interpreting the definition of "machinegun" with respect to bump-stock-type devices, published an advance notice of proposed rulemaking (ANPRM) in the Federal Register. Application of the Definition of Machinegun to "Bump Fire" Stocks and Other Similar Devices, 82 FR 60929. The ANPRM solicited comments concerning the market for bump-stock-type devices and manufacturer and retailer data. Specifically, the Department asked a series of questions of consumers, retailers, and manufacturers of bump-stock-type devices regarding the cost of bump-stock-type devices, average gross receipts of sales, and the volume and cost of manufacturing, as well as input on the potential effect of a rulemaking affecting bump-stock-type devices, including viable markets or the cost of disposing of inventory. Public comment on the ANPRM concluded on January 25, 2018. While ATF received over 115,000 comments, the vast majority of these comments were not responsive to the ANPRM.

On February 20, 2018, the President issued a memorandum to the Attorney General concerning "bump fire" stocks and similar devices. Application of the Definition of Machinegun to "Bump Fire" Stocks and Other Similar Devices, 83 FR 7949. The memorandum noted that the Department of Justice had already "started the process of promulgating a Federal regulation interpreting the definition of 'machinegun' under Federal law to clarify whether certain bump stock type devices should be illegal." Id. The President then directed the Department of Justice, working within established legal protocols, "to dedicate all *66517 available resources to complete the review of the comments received [in response to the ANPRM],

and, as expeditiously as possible, to propose for notice and comment a rule banning all devices that turn legal weapons into machineguns." Id.

III. Notice of Proposed Rulemaking

On March 29, 2018, the Department published in the Federal Register a notice of proposed rulemaking (NPRM) titled "Bump-Stock-Type Devices," 83 FR 13442 (ATF Docket No. 2017R-22), proposing changes to the regulations in 27 CFR 447.11, 478.11, and 479.11. The comment period for the proposed rule concluded on June 27, 2018.

A. Prior Interpretations of "Single Function of the Trigger" and "Automatically"

In the NPRM, the Department reviewed ATF's history of classifying bump-stock-type devices through agency rulings and relevant litigation. In particular, it described how ATF published ATF Ruling 2006-2, "Classification of Devices Exclusively Designed to Increase the Rate of Fire of a Semiautomatic Firearm." The ruling explained that ATF had received requests from "several members of the firearms industry to classify devices that are exclusively designed to increase the rate of fire of a semiautomatic firearm." ATF Ruling 2006-2, at 1. Prior to issuing ATF Ruling 2006-2, ATF had examined a device called the "Akins Accelerator." To operate the device, the shooter initiated an automatic firing sequence by pulling the trigger one time, which in turn caused the rifle to recoil within the stock, permitting the trigger to lose contact with the finger and manually reset. Springs in the Akins Accelerator then forced the rifle forward, forcing the trigger against the finger, which caused the weapon to discharge the ammunition. The recoil and the spring-powered device thus caused the firearm to cycle back and forth, impacting the trigger finger without further input by the shooter while the firearm discharged multiple shots. The device was advertised as able to fire approximately 650 rounds per minute. See id. at 2.

ATF initially reviewed the Akins Accelerator in 2002 and determined it not to be a machinegun because ATF interpreted the statutory term "single function of the trigger" to refer to a single movement of the trigger. But ATF undertook further review of the device based on how it actually functioned when sold and later determined that the Akins Accelerator should be classified as a machinegun. ATF reached that conclusion because the best interpretation of the phrase "single function of the trigger" includes a "single pull of the trigger." The Akins Accelerator qualified as a machinegun because ATF determined through testing that when the device was installed on a semiautomatic rifle (specifically a Ruger Model 10-22), it resulted in a weapon that "[with] a single pull of the trigger initiates an automatic firing cycle that continues until the finger is released, the weapon malfunctions, or the ammunition supply is exhausted." Akins v. United States, No. 8:08-cv-988, slip op. at 5 (M.D. Fla. Sept. 23, 2008) (internal quotation marks omitted).

When issuing ATF Ruling 2006-2, ATF set forth a detailed description of the components and functionality of the Akins Accelerator and devices with similar designs. The ruling determined that the phrase "single function of the trigger" in the statutory definition of "machinegun" was best interpreted to mean a "single pull of the trigger." ATF Ruling 2006-2, at 2 (citing National Firearms Act: Hearings Before the Comm. on Ways and Means, House of Representatives, Second Session on H.R. 9066, 73rd Cong., at 40 (1934)). ATF further indicated that this interpretation would apply when the agency classified devices designed to increase the rate of fire of semiautomatic firearms. Thus, ATF concluded in ATF Ruling 2006-2 that devices exclusively designed to increase the rate of fire of semiautomatic firearms were machineguns if, "when activated by a single pull of the trigger, [such devices] initiate[] an automatic firing cycle that continues until either the finger is released or the ammunition supply is exhausted." Id. at 3. Finally, because the "single pull of the trigger" interpretation constituted a change from ATF's prior interpretations of the phrase "single function of the trigger," ATF Ruling 2006-2 concluded that "[t]o the extent previous ATF rulings are inconsistent with this determination, they are hereby overruled." Id.

Following its reclassification of the Akins Accelerator as a machinegun, ATF determined and advised owners of Akins Accelerator devices that removal and disposal of the internal spring—the component that caused the rifle to slide forward in the stock—would render the device a non-machinegun under the statutory definition. Thus, a possessor could retain the device by removing and disposing of the spring, in lieu of destroying or surrendering the device.

In May 2008, the inventor of the Akins Accelerator filed a lawsuit challenging ATF's classification of his device as a machinegun, claiming the agency's decision was arbitrary and capricious under the Administrative Procedure Act (APA). Akins v. United States, No. 8:08-cv-988, slip op. at 7-8 (M.D. Fla. Sept. 23, 2008). The United States District Court for the Middle District of Florida rejected the plaintiff's challenge, holding that ATF was within its authority to reconsider and change its interpretation of the phrase "single function of the trigger" in the NFA's statutory definition of "machinegun." Id. at 14. The court further held that the language of the statute and the legislative history supported ATF's interpretation of the statutory phrase "single function of the trigger" as synonymous with "single pull of the trigger." Id. at 11-12. The court concluded that in ATF Ruling 2006-2, ATF had set forth a "reasoned analysis" for the application of that new interpretation to the Akins Accelerator and similar devices, including the need to "protect the public from dangerous firearms." Id. at 12.

The United States Court of Appeals for the Eleventh Circuit affirmed the district court's decision, holding that "[t]he interpretation by the Bureau that the phrase 'single function of the trigger' means a 'single pull of the trigger' is consonant with the statute and its legislative history." Akins, 312 F. App'x at 200. The Eleventh Circuit further concluded that "[b]ased on the operation of the Accelerator, the Bureau had the authority to 'reconsider and rectify' what it considered to be a classification error." Id.

In ten letter rulings between 2008 and 2017, ATF applied the "single pull of the trigger" interpretation to other bump-stock-type devices. Like the Akins Accelerator, these other bump-stock-type devices allowed the shooter to fire more than one shot with a single pull of the trigger. However, ATF ultimately concluded that these devices did not qualify as machineguns because, in ATF's view, they did not "automatically" shoot more than one shot with a single pull of the trigger. ATF also applied its "single pull of the trigger" interpretation to other trigger actuators, two-stage triggers, and other devices submitted to ATF for classification. Depending on the method of operation, some such devices were classified to be machineguns that were required to be registered in the National Firearms Registration and Transfer Record (NFRTR) and could not be transferred or possessed, except in *66518 limited circumstances, under 18 U.S.C. 922(o).[FN4]

- Examples of recent ATF classification letters relying on the "single pull of the trigger" interpretation to classify submitted devices as machineguns include the following:
 - On April 13, 2015, ATF issued a classification letter regarding a device characterized as a "positive reset trigger," designed to be used on a semiautomatic AR-style rifle. The device consisted of a support/stock, secondary trigger, secondary trigger link, pivot toggle, shuttle link, and shuttle. ATF determined that, after a single pull of the trigger, the device utilized recoil energy generated from firing a projectile to fire a subsequent projectile. ATF noted that "a 'single function of the trigger' is a single pull," and that the device utilized a "single function of the trigger" because the shooter need not release the trigger to fire a subsequent projectile, and instead "can maintain constant pressure through a single function of the trigger."
 - On October 7, 2016, ATF issued a classification letter regarding two devices described as "LV-15 Trigger Reset Devices." The devices, which were designed to be used on an AR-type rifle, were essentially identical in design and function and were submitted by the same requester (per the requester, the second device included "small improvements that have come as the result of further development since the original submission"). The devices were each powered by a rechargeable battery and included the following components: A self-contained trigger mechanism with an electrical connection, a modified two-position semiautomatic AR-15 type selector lever, a rechargeable battery pack, a grip assembly/trigger guard with electrical connections, and a piston that projected forward through the lower rear portion of the trigger guard and pushed the trigger forward as the firearm cycled. ATF held that "to initiate the firing . . . a shooter must simply pull the trigger." It explained that although the mechanism pushed the trigger forward, "the shooter never releases the trigger. Consistent with [the requester's] explanation, ATF demonstrated that the device fired multiple projectiles with a "single function of the trigger" because a single pull was all that was required to initiate and maintain a firing sequence.

In the NPRM, the Department also noted that prior ATF rulings concerning bump-stock-type devices did not provide substantial or consistent legal analysis regarding the meaning of the term "automatically," as it is used in the NFA and GCA. For example, ATF Ruling 2006-2 concluded that devices like the Akins Accelerator initiated an "automatic" firing cycle because, once initiated by a single pull of the trigger, "the automatic firing cycle continues until the finger is released or the ammunition supply is exhausted." ATF Ruling 2006-2, at 1. In contrast, other ATF letter rulings between 2008 and 2017 concluded that

bump-stock-type devices that enable a semiautomatic firearm to shoot more than one shot with a single function of the trigger by harnessing a combination of the recoil and the maintenance of pressure by the shooter do not fire "automatically." Of the rulings issued between 2008 and 2017, ATF provided different explanations for why certain bump-stock-type devices were not machineguns, but none of them extensively examined the meaning of "automatically." For instance, some letter rulings concluded that certain devices were not machineguns because they did not "initiate[] an automatic firing cycle that continues until either the finger is released or the ammunition supply is exhausted," without further defining the term "automatically." E.g., Letter for Michael Smith from ATF's Firearm Technology Branch Chief (April 2, 2012). Other letter rulings concluded that certain bump-stock-type devices were not machineguns because they lacked any "automatically functioning mechanical parts or springs and perform[ed] no mechanical function[s] when installed," again without further defining the term "automatically" in this context. E.g., Letter for David Compton from ATF's Firearm Technology Branch Chief (June 7, 2010).

B. Re-Evaluation of Bump-Stock-Type Devices

In the NPRM, the Department reviewed the functioning of semiautomatic firearms, describing that ordinarily, to operate a semiautomatic firearm, the shooter must repeatedly pull and release the trigger to allow it to reset, so that only one shot is fired with each pull of the trigger. 83 FR at 13443. It then explained that bump-stock-type devices, like the ones used in Las Vegas, are designed to channel recoil energy to increase the rate of fire of semiautomatic firearms from a single trigger pull. Id. Shooters can maintain a continuous firing cycle after a single pull of the trigger by directing the recoil energy of the discharged rounds into the space created by the sliding stock (approximately 1.5 inches) in constrained linear rearward and forward paths. Id. These bump-stock-type devices are generally designed to operate with the shooter shouldering the stock of the device (in essentially the same manner a shooter would use an unmodified semiautomatic shoulder stock), maintaining constant forward pressure with the non-trigger hand on the barrel-shroud or fore-grip of the rifle, and maintaining the trigger finger on the device's ledge with constant rearward pressure. Id. The device itself then harnesses the recoil energy of the firearm, providing the primary impetus for automatic fire. Id.

In light of its reassessment of the relevant statutory terms "single function of the trigger" and "automatically," the NPRM stated ATF's conclusion that bump-stock-type devices are "machineguns" as defined in the NFA because they convert an otherwise semiautomatic firearm into a machinegun by functioning as a self-acting or self-regulating mechanism that, after a single pull of the trigger, harnesses the recoil energy of the semiautomatic firearm in a manner that allows the trigger to reset and continue firing without additional physical manipulation of the trigger by the shooter. Hence, a semiautomatic firearm to which a bump-stock-type device is attached is able to produce automatic fire with a single pull of the trigger.

C. Proposed Definition of "Single Function of the Trigger"

The Department proposed to interpret the phrase "single function of the trigger" to mean "a single pull of the trigger," as it considered it the best interpretation of the statute and because it reflected ATF's position since 2006. The Supreme Court in Staples v. United States, 511 U.S. 600, 602 n.1 (1994), indicated that a machinegun within the NFA "fires repeatedly with a single pull of the trigger." This interpretation is also consistent with how the phrase "single function of the trigger" was understood at the time of the NFA's enactment in 1934. For instance, in a congressional hearing leading up to the NFA's enactment, the National Rifle Association's then-president testified that a gun "which is capable of firing more than one shot by a single pull of the trigger, a single function of the trigger, is properly regarded, in my opinion, as a machine gun." National Firearms Act: Hearings Before the Committee on Ways and Means, H.R. 9066, 73rd Cong., 2nd Sess., at 40 (1934). Furthermore, and as noted above, the Eleventh Circuit in Akins concluded that ATF's interpretation of "single function of the trigger" to mean a "single pull of the trigger" is consonant with the statute and its legislative history." 312 F. App'x at 200. No other court has held otherwise.[FN5]

The NPRM also explained that the term "pull" can be analogized to "push" and other terms that describe activation of a trigger. For instance, ATF used the term "pull" in classifying the Akins Accelerator because that was the manner in which the firearm's trigger was activated with the device. But the courts have made clear that whether a trigger is operated through a "pull," "push," or some

other action such as a flipping a switch, does not change the analysis of the functionality of a firearm. For example, in United States v. Fleischli, 305 F.3d 643, 655-56 (7th Cir. 2002), the Seventh Circuit rejected the argument that a switch did not constitute a trigger for purposes of assessing whether a firearm was a machinegun under the NFA, because such an interpretation of the statute would lead to "the absurd result of enabling persons to avoid the NFA simply by using weapons that employ a button or switch mechanism for firing." See also United States v. Camp, 343 F.3d 743, 745 (5th Cir. 2003) (" 'To construe "trigger" to mean only a small lever moved by a finger would be to impute to Congress the intent to restrict the term to apply only to one kind of trigger, albeit a very common kind. The language [in 18 U.S.C. 922(o)] implies no intent to so restrict the meaning[.]' " (quoting United States v. Jokel, 969 F.2d 132, 135 (5th Cir. 1992) (emphasis removed))). Examples of machineguns that operate through a trigger activated by a push include the Browning design, M2 .50 caliber, the Vickers, the Maxim, and the M134 hand-fired Minigun.

*66519 D. Proposed Definition of "Automatically"

The Department also proposed to interpret the term "automatically" to mean "as the result of a self-acting or self-regulating mechanism that allows the firing of multiple rounds through a single pull of the trigger." That interpretation reflects the ordinary meaning of that term at the time of the NFA's enactment in 1934. The word "automatically" is the adverbial form of "automatic," meaning "[h]aving a self-acting or self-regulating mechanism that performs a required act at a predetermined point in an operation[.]" Webster's New International Dictionary 187 (2d ed. 1934); see also 1 Oxford English Dictionary 574 (1933) (defining "Automatic" as "[s]elf-acting under conditions fixed for it, going of itself.").

Relying on these definitions, the United States Court of Appeals for the Seventh Circuit interpreted the term "automatically" as used in the NFA as "delineat[ing] how the discharge of multiple rounds from a weapon occurs: As the result of a self-acting mechanism . . . set in motion by a single function of the trigger and . . . accomplished without manual reloading." United States v. Olofson, 563 F.3d 652, 658 (7th Cir. 2009). So long as the firearm is capable of producing multiple rounds with a single pull of the trigger until the trigger finger is removed, the ammunition supply is exhausted, or the firearm malfunctions, the firearm shoots "automatically" irrespective of why the firing sequence ultimately ends. Id. ("[T]he reason a weapon ceased firing is not a matter with which § 5845(b) is concerned."). Olofson thus requires only that the weapon shoot multiple rounds with a single function of the trigger "as the result of a self-acting mechanism," not that the self-acting mechanism produces the firing sequence without any additional action by the shooter. This definition accordingly requires that the self-acting or self-regulating mechanism allows the firing of multiple rounds through a single function of the trigger.

E. Proposed Clarification That the Definition of "Machinegun" Includes Bump-Stock-Type Devices

The Department also proposed, based on the interpretations discussed above, to clarify that the term "machinegun" includes a device that allows a semiautomatic firearm to shoot more than one shot with a single pull of the trigger by harnessing the recoil energy of the semiautomatic firearm to which it is affixed so that the trigger resets and continues firing without additional physical manipulation of the trigger by the shooter. The Department explained that when a shooter who has affixed a bump-stock-type device to a semiautomatic firearm pulls the trigger, that movement initiates a firing sequence that produces more than one shot. And that firing sequence is "automatic" because the device harnesses the firearm's recoil energy in a continuous back-and-forth cycle that allows the shooter to attain continuous firing after a single pull of the trigger, so long as the trigger finger remains stationary on the device's ledge (as designed). Accordingly, these devices are included under the definition of "machinegun" and, therefore, come within the purview of the NFA.

F. Amendment of 27 CFR 479.11

The regulatory definition of "machine gun" in 27 CFR 479.11 matches the statutory definition of "machinegun" in the NFA. The definition includes the terms "single function of the trigger" and "automatically," but those terms are not defined in the statutory text. The NPRM proposed to define these terms in order to clarify the meaning of "machinegun." Specifically, the Department proposed to amend the definition of "machine gun" in 27 CFR 479.11 by:

1. Defining the term "single function of the trigger" to mean "single pull of the trigger";

- 2. defining the term "automatically" to mean "as the result of a self-acting or self-regulating mechanism that allows the firing of multiple rounds through a single pull of the trigger"; and
- 3. adding a sentence to clarify that a "machine gun" includes a device that allows a semiautomatic firearm to shoot more than one shot with a single pull of the trigger by harnessing the recoil energy of the semiautomatic firearm to which it is affixed so that the trigger resets and continues firing without additional physical manipulation of the trigger by the shooter (commonly known as a bump-stock-type device).

G. Amendment of 27 CFR 478.11

The GCA and its implementing regulations in 27 CFR part 478 reference the NFA's definition of machinegun. Accordingly, the NPRM proposed to make the same amendments in 27 CFR 478.11 that were proposed for § 479.11.

H. Amendment of 27 CFR 447.11

The Arms Export Control Act (AECA), as amended, does not define the term "machinegun" in its key provision, 22 U.S.C. 2778.[FN6] However, regulations in 27 CFR part 447 that implement the AECA include a similar definition of "machinegun," and explain that machineguns, submachineguns, machine pistols, and fully automatic rifles fall within Category I(b) of the U.S. Munitions Import List when those defense articles are permanently imported. See 27 CFR 447.11, 447.21. Currently, the definition of "machinegun" in § 447.11 provides that "[a] 'machinegun', 'machine pistol', 'submachinegun', or 'automatic rifle' is a firearm originally designed to fire, or capable of being fired fully automatically by a single pull of the trigger." The NPRM proposed to harmonize the AECA's regulatory definition of machinegun with the definitions in 27 CFR parts 478 and 479, as those definitions would be amended by the proposed rule.

Under the AECA, the President has the authority to designate which items are controlled as defense articles for purposes of importation and exportation. 22 U.S.C. 2778(a)(1). The President has, in turn, delegated to the Attorney General the authority to promulgate regulations designating the defense articles controlled for permanent importation, including machineguns.

IV. Analysis of Comments and Department Responses for Proposed Rule

In response to the NPRM, ATF received over 186,000 comments. Submissions came from individuals, including foreign nationals, lawyers, and government officials, as well as various interest groups. Overall, 119,264 comments expressed support for the proposed rule, 66,182 comments expressed opposition, and for 657 comments, the commenter's position could not be determined. The commenters' grounds for support and opposition, along with specific concerns and suggestions, are discussed below.

A. Comments Generally Supporting the Rule

Comments Received

Of the 119,264 comments received in support of the rule, 14,618 used one form letter in support of the proposed rule; 51,454 were petitions or petition signatures compiled by an organization and individuals; and 53,192 were unique comments. Many of the 53,192 unique comments used repetitious declarations of support or a single sentence or phrase, declaring, in essence, (1) ban bump stocks now or I *66520 support a ban; (2) common sense gun reform or gun control now; (3) bump stocks should be outlawed; or (4) I fully support this proposed rule. Others supporting the rule expressed disbelief as to how such devices were legal and that it seemed to be a "no brainer," especially after Las Vegas, to prevent anyone from possessing an item that allows the shooter to inflict mass carnage. Several commenters stated that they were present at or knew people who were directly affected by the Las Vegas shooting and urged finalization of the proposed rule on bump-stock-type devices. Some commenters identified as active or former military, while other individuals noted their support for a prohibition on bump-stock-type devices while identifying as gun owners and gun enthusiasts, strong supporters of the Second Amendment, or members of a

particular pro-gun interest group. For instance, one commenter wrote, "As an FFL [Federal firearms license] dealer, gun owner and collector, I am writing to support the ban on the sale of bump stocks." Another explained that he has been a member of the National Rifle Association (NRA) for over 30 years and loves hunting and shooting but believes "there is zero justification for bump stocks," because the "only thing bump stocks are good for is creating a kill zone."

Department Response

The Department acknowledges the commenters' support for the proposed rule. The rule clarifies the regulatory definition of "machinegun" to include bump-stock-type devices, and, therefore, subjects them to the restrictions imposed by the NFA and GCA. As 18 U.S.C. 922(o), with limited exceptions, prohibits the possession of machineguns that were not lawfully possessed before the effective date of the statute, current possessors of bump-stock-type devices will be obligated to cease possessing these devices.

B. Particular Reasons Raised in Support of the Rule

1. Threat to Public Safety

Comments Received

Over 36,000 of the supporting comments expressly cited public safety, saving lives (or specifically children's lives), reducing gun deaths and future mass shootings, or protecting law enforcement as the reason for supporting a rule that would restrict possession of bump-stock-type devices. A majority of these comments, including submissions from professional medical associations, declared that allowing persons to modify semiautomatic rifles with bump-stock-type devices so that they operate with a similar rate of fire as fully automatic rifles poses a substantial risk to public safety and that the continued presence of these devices puts all communities at risk. Some commenters said that research shows that nations that have reasonable gun restrictions experience fewer mass shootings. Additionally, many students and numerous individuals identified as former or current teachers expressed support for the rule, with some citing fear that their school could be the next site of a mass shooting or stating that they do not want to continue seeing their students in constant fear of the next active shooter.

Several commenters also noted that bump-stock-type devices are a danger to police forces, with one commenter, a retired law enforcement officer, declaring that regulating bump-stock-type devices is an issue of public safety and will save the lives of those who are in law enforcement. Similarly, other commenters, including a former military physician, stated that the rapid fire enabled by bump-stock-type devices significantly increases the casualties in an attack and puts police officers who respond at greater risk. In light of the Las Vegas shooting, many commenters argued that, given that bump-stock-type devices are easily attainable and inexpensive items, prohibiting these devices is a needed step to reduce gun deaths or prevent future mass shootings. Many individuals, including several State and local government officials and gun safety or public health groups, expressed the urgent need for ATF to finalize the proposed rule in order to protect the public and children, especially given the frequency of mass shootings in recent months and the likelihood that a potential perpetrator will seek out these devices.

Department Response

The Department acknowledges that a bump-stock-type device combined with a semiautomatic firearm can empower a single individual to take many lives in a single incident. The reason for the Department's classification change is that ATF, upon review (discussed in Part III), believes that bump-stock-type devices must be regulated because they satisfy the statutory definition of "machinegun" in the NFA and GCA. By making clear that these devices are subject to the restrictions that the NFA and GCA place on machineguns, this rule reflects the public safety goals of those statutes. Indeed, the NPRM stated that the Las Vegas tragedy made "individuals aware that these devices exist—potentially including persons with criminal or terrorist intentions—and made their potential to threaten public safety obvious." 83 FR at 13447. For further discussion of benefits, see Part VI.A.

2. Unnecessary for Civilians to Own

Comments Received

Of the total supporting comments, at least 25,135 of the commenters opined that bump-stock-type devices have no place in civil society and are unnecessary for ordinary persons to own. One of the primary reasons thousands expressed support for the regulation was their view that bump-stock-type devices have no legitimate uses for hunting or sporting purposes, target shooting, or self-protection. Many of these commenters emphasized that the devices cause a decrease in shooter accuracy, and therefore are not useful for hunting and target shooting, and are inappropriate for use in self or home defense. For example, one commenter rhetorically stated, "[W]hat law abiding gun owner who is responsible for every bullet they shoot would want to reduce their accuracy?" Some of these commenters further asserted that because the devices enable rapid but inaccurate fire, they pose a particular risk to large-scale public events, such as the Las Vegas concert. Many commenters, including those identifying as former or active military members, commented that only the military or law enforcement should have access to bump-stock-type devices or that there was no need for civilians to have access to them.

Department Response

The Department acknowledges supporters' comments on limiting the possession of bump-stock-type devices to military or law enforcement. Such a limitation is consistent with the Firearms Owners' Protection Act (FOPA), Public Law 99-308, 100 Stat. 449, which makes it unlawful for any person to transfer or possess a machinegun that was not lawfully possessed before the effective date of the statute. FOPA made an exception for governmental entities, allowing for the "transfer to or by, or possession by or under the authority of, the United States or any department or agency thereof or a State, or a department, agency, or political subdivision thereof." 18 U.S.C. 922(o)(2)(A). Congress provided this exemption because it recognized the necessity for the military and law enforcement to continue to use and possess these types of weapons. This final rule is consistent with *66521 implementing the requirements of the NFA and GCA provisions that regulate possession of machineguns.

3. Consistent With the Intent of the National Firearms Act

Comments Received

More than 27,000 of the supporting comments urged issuance of the final rule because bump-stock-type devices and other similar conversion devices were meant to circumvent the restrictions of the NFA and GCA, as bump-stock-type devices enable shooters to transform their guns into automatic weapons. Some commenters asserted that it is useless to have a law against automatic weapons yet allow manufacturers to legally produce and sell an item with the sole purpose of turning a firearm into an automatic weapon. Many of these commenters also stated that bump-stock-type devices violate the spirit of the law and that this loophole should be closed by ATF as quickly as possible. Further, at least 1,675 of the supporting comments stated that the proposed rule is consistent with the purposes of the NFA and the intent of Congress. Specifically, these commenters opined that the regulation "enforces machinegun laws that date back many decades" and that "it will have the same dramatic benefit originally intended by those foundational laws."

Department Response

The Department acknowledges supporters' comments that bump-stock-type devices were meant to circumvent the restrictions of the NFA and GCA. Prior to this rule, ATF issued classification letters that determined that some bump-stock-type devices were not "machineguns" as defined by the NFA. Those decisions, however, did not include extensive legal analysis, as described in Part III. Upon reexamining these classifications, this final rule promulgates definitions for the terms "single function of the trigger" and "automatically" as those terms are used in the statutory definition of "machinegun." ATF believes these definitions represent the best interpretation of the statute. Therefore, recognizing that a bump-stock-type device used with a semiautomatic firearm enables a shooter to shoot automatically more than one shot by a single function of the trigger, the purpose of this rule is to clarify that such devices are machineguns under the NFA.

4. Constitutional Under the Second Amendment

Comments Received

More than 2,100 commenters in support of the rule argued that a rule prohibiting possession of bump-stock-type devices does not conflict with the Second Amendment. Many opined that the Framers of the Constitution did not intend for these types of devices, which can inflict mass carnage, to be protected by the Second Amendment. Commenters expressed the view that because persons living in the 18th century used muskets capable of firing only one shot before requiring a long reloading process, our forefathers would not have wanted bump-stock-type devices to be readily available. Other commenters, including those who declared themselves to be strong supporters of the Second Amendment, stated that prohibiting bump-stock-type devices was consistent with the Second Amendment.

Several commenters noted language from the majority opinion in District of Columbia v. Heller, 554 U.S. 570 (2008). There, the Supreme Court declared that the Second Amendment protects an individual right to bear arms for traditional lawful purposes such as self-defense and hunting. However, the Court also stated, "Like most rights, the right secured by the Second Amendment is not unlimited. From Blackstone through the 19th-century cases, commentators and courts routinely explained that the right was not a right to keep and carry any weapon whatsoever in any manner whatsoever and for whatever purpose." Id. at 626. Commenters further summarized the Court's conclusions that limitations on the right to keep and carry arms are supported by the historical tradition of prohibiting the carrying of "dangerous and unusual weapons." Id. at 627. Commenters argued that the Supreme Court's Second Amendment decisions support the proposed rule.

Department Response

The Department acknowledges supporters' concerns and agrees that regulation of bump-stock-type devices is permissible under the Second Amendment. For discussion of the Department's position on the constitutionality of this final rule under the Second Amendment, see Part IV.D.1.a.

5. Absence of Congressional Action

Comments Received

Over 1,500 comments in support urged action on this final rule by invoking popular support for responsible gun limitations. Many of these commenters stated this measure would be a sensible first step for gun safety and that ATF should act where Congress has not acted. One gun safety organization noted that while congressional measures have stalled, ATF is doing what it can to refine rules. At least 1,300 commenters indicated that ATF should choose saving children and the public welfare over the interests of the gun industry and pro-gun organizations, naming in particular the NRA. One commenter wrote, "It's time we quit cow-towing [sic] to the NRA and considered all the rest of us and our children especially. Being afraid to go to school is unAmerican which is what the insistence by the NRA on no gun control is—unAmerican." Many supporting commenters echoed these sentiments.

Department Response

In light of the legal analysis of the term "machinegun" set forth above, the Department agrees with commenters that it is necessary to clarify that the term "machinegun" includes bump-stock-type devices. Congress granted the Attorney General authority to issue rules to administer the NFA and GCA, and the Attorney General has delegated to ATF the authority to administer and enforce these statutes and to implement the related regulations accordingly. The Department and ATF have initiated this rulemaking to clarify the regulatory interpretation of the NFA and GCA.

C. Comments Generally Opposing the Rule

Comments Received

A total of 66,182 comments were received that opposed the rule. Approximately 40,806 of those comments were form submissions by the National Association for Gun Rights (NAGR) on behalf of its members, with 25,874 submitted on paper petitions and 14,932 submitted by facsimile. The remaining 25,376 opposing comments were individually submitted. Many of the commenters identified as lawyers, judges, industry groups, or members of law enforcement or the military. There were several commenters who stated they did not own or had no interest in owning a bump-stock-type device but still objected to the rule on various grounds, including that it is unconstitutional and only punishes law-abiding owners of bump-stock-type devices. Of the 25,376 comments individually submitted, 12,636 used one of three form letters; the remaining 12,740 were unique comments. A majority of these commenters raised *66522 specific, detailed objections to the agency's proposal and the premise upon which the regulation is based, whereas several hundred of the unique comments were limited to a few sentences opposing the regulation without further detail. For example, these types of comments simply declared, in essence, (1) no ban, or a ban is unnecessary; (2) individuals' Second Amendment rights should not be infringed; or (3) I oppose any additional gun regulations.

Department Response

The Department acknowledges the commenters' objections to the proposed rule but disagrees with assertions that the rule infringes on the constitutional right to keep and bear arms and punishes law-abiding gun owners. The Department believes that bump-stock-type devices satisfy the definition of "machinegun" under the NFA and GCA and that this final rule reflects the public safety goals of the NFA and GCA. The Department thoroughly considered the various issues raised in opposition to the rule, which are discussed below.

D. Specific Issues Raised in Opposition to the Rule

- 1. Constitutional and Statutory Arguments
- a. Violates the Second Amendment

Comments Received

A total of 16,051 of the commenters opposed the rule on the ground that it violates the Second Amendment. Of these, 11,753 used a form letter stating that the "regulations dismiss Second Amendment protections, by appealing to the Heller court decision. But the Constitution trumps the Supreme Court—so when the Second Amendment says the right to keep and bear arms shall not be infringed, any limitation of the right for law-abiding citizens should be treated as unconstitutional[.]" Many commenters, including those identifying as former or active law enforcement or military members, echoed these sentiments by declaring that the proposed rule infringes on the rights of law-abiding gun owners, and that the phrasing of the Second Amendment—"shall not be infringed"—strictly limits or negates the ability of Government to impose any regulations on firearms. One commenter, for instance, argued that the Second Amendment's reference to a "well-regulated Militia" includes unorganized militia, which the commenter interpreted to mean any person who owns a gun. Because the military has automatic weapons, the commenter reasoned that the people—as the unorganized militia—are likewise constitutionally entitled to access such weapons.

Numerous commenters cited the Supreme Court's decision in Heller, 554 U.S. 570, which declared that the Second Amendment protects an individual right to bear arms. Commenters also referred to the Supreme Court's decision in Caetano v. Massachusetts, 136 S. Ct. 1027 (2016) (per curiam), stating that this decision makes clear that weapons in "common use" cannot be banned. One commenter pointed out that if bump-stock-type devices are now machineguns, then there are an additional 519,927 machineguns that are currently owned typically by law-abiding citizens for lawful purposes. This amount, the commenter argued, surpasses the 200,000 stun guns found to trigger a "common use" analysis in Caetano, meaning that such items cannot be banned unless they are both dangerous and unusual. Further, commenters said that Caetano stands for the proposition that any advancement in weaponry is still protected under the Second Amendment. They argued that the Court declared "the Second Amendment extends, prima facie, to all instruments that constitute bearable arms, even those that were not in existence at the time of the founding" and that its protection is not limited to only those weapons useful in warfare. Id. at 1027 (internal quotation marks omitted).

Department Response

The Department does not believe that the proposed regulation violates the Second Amendment. The Supreme Court has indicated, and several lower courts have squarely held, that the Second Amendment does not protect a right to possess a machinegun. Because bump-stock-type devices are machinegun conversion devices that qualify as "machineguns" under Federal law, see supra Part III.E., prohibiting them does not violate the Second Amendment.

"Like most rights, the right secured by the Second Amendment is not unlimited." Heller, 554 U.S. at 626; accord McDonald v. City of Chi., 561 U.S. 742, 786 (2010). In Heller, for example, the Supreme Court recognized an "important limitation on the right to keep and carry arms": "the historical tradition of prohibiting the carrying of 'dangerous and unusual weapons.' " 554 U.S. at 627. More specifically, and importantly for purposes of this rulemaking, the Court explicitly described machineguns as the kind of dangerous and unusual weapons not protected by the Second Amendment. In the course of explaining the Court's holding in United States v. Miller, 307 U.S. 174 (1939) (upholding Federal prohibition of short-barreled shotguns), the Court noted that a portion of Miller could be "[r]ead in isolation" to "mean that only those weapons useful in warfare are protected" by the Second Amendment. Heller, 554 U.S. at 624. But "[t]hat would be a startling reading of the opinion," the Court continued, "since it would mean that the National Firearms Act's restrictions on machineguns . . . might be unconstitutional, machineguns being useful in warfare in 1939." Id. Heller thus made clear that machineguns, like short-barreled shotguns, are "weapons not typically possessed by law-abiding citizens for lawful purposes," and thus fall outside the scope of the Second Amendment as historically understood. Id. at 625; see also id. at 627 (accepting that M-16 rifles are dangerous and unusual weapons that may be banned).

In the decade since Heller was decided, lower courts have consistently upheld prohibitions of machineguns. Hollis v. Lynch, 827 F.3d 436, 451 (5th Cir. 2016) (upholding Federal statute banning possession of machineguns because they are "dangerous and unusual and therefore not in common use"); United States v. Henry, 688 F.3d 637, 640 (9th Cir. 2012); Hamblen v. United States, 591 F.3d 471, 472, 474 (6th Cir. 2009); United States v. Fincher, 538 F.3d 868, 874 (8th Cir. 2008); see also Heller v. Dist. of Columbia (Heller II), 670 F.3d 1244, 1270 (D.C. Cir. 2011) (Kavanaugh, J., dissenting) ("fully automatic weapons, also known as machine guns, have traditionally been banned and may continue to be banned after Heller"); United States v. Marzzarella, 614 F.3d 85, 94-95 (3d Cir. 2010) ("the Supreme Court has made clear the Second Amendment does not protect" machineguns and short-barreled shotguns).

This body of precedent, in addition to Heller, strongly supports the Department's view that a bump-stock-type device, as a machinegun conversion device qualifying as a "machinegun" under Federal law, is not protected by the Second Amendment. What makes a machinegun a "dangerous and unusual weapon" unprotected by the Second Amendment is its capacity to fire automatically, see, e.g., Henry, 688 F.3d at 640, which "puts the machine gun on a different plane" than other firearms, United States v. Kirk, 105 F.3d 997, 1002 (5th Cir. 1997) (en banc) (opinion of Higginbotham, J.). Bump-stock-type devices qualify as machineguns, as discussed above, *66523 because they enable an otherwise semiautomatic firearm to fire automatically. Since they bear the same key characteristic that makes traditional machineguns "dangerous and unusual," bump-stock-type devices are unprotected by the Second Amendment for the same reason.

This conclusion is fully consistent with Caetano v. Massachusetts, 136 S. Ct. 1027. In Caetano, the Supreme Judicial Court of Massachusetts had upheld a State prohibition of stun guns on the grounds that stun guns were not in common use when the Second Amendment was ratified and are not useful in military operations. See id. at 1027-28. The Supreme Court summarily vacated this ruling because neither of the State court's premises was valid: Heller made a "clear statement that the Second Amendment 'extends...to...arms... that were not in existence at the time of the founding,' and "rejected the proposition that only those weapons useful in warfare are protected.' Id. at 1028 (quoting Heller, 554 U.S. at 582, 624-25). The Department's conclusion in this rulemaking that the Second Amendment does not protect bump-stock-type devices rests on neither of the propositions rejected by Caetano. As discussed above, the Department believes that this rule comports with the Second Amendment because bump-stock-type devices qualify as machineguns, which are not constitutionally protected—not because bump-stock-type devices did not exist in 1791 or are not useful in warfare. Moreover, although the Supreme Judicial Court of Massachusetts ultimately held that stun guns are protected under the Second Amendment in Ramirez v. Commonwealth,

94 NE3d 809 (2018), the court did not suggest that more dangerous weapons, like machineguns and machinegun conversion devices, are also protected. The court acknowledged that a stun gun is even "less lethal than a handgun," id. at 817, the weapon that the Supreme Court expressly held to be protected in Heller, 554 U.S. at 635.

b. Violates the Fifth Amendment

i. Violates Due Process Clause-Entrapment

Comments Received

At least one commenter, a gun-rights nonprofit organization, argued that ATF's change of position constitutes unconstitutional entrapment. It maintained that ATF's past classification letters, which informed the public that certain bump-stock-type devices were not subject to the NFA or GCA, invited the public to rely on its consistent decisions and acquire such items. With the sudden change of position, the organization asserted, ATF seeks to entrap citizens who have simply purchased a federally approved firearm accessory. Citing Sherman v. United States, 356 U.S. 367, 376 (1958), the organization argued that it is "unconstitutional for the Government to beguile an individual 'into committing crimes which he otherwise would not have attempted.' "Further, it argued that at least some 520,000 law-abiding citizens could be criminals who could face up to ten years' imprisonment "without even receiving individual notice of ATF's reversal of position."

Department Response

The Department disagrees that the final rule amounts to entrapment. Entrapment is a complete defense to a criminal charge on the theory that "Government agents may not originate a criminal design, implant in an innocent person's mind the disposition to commit a criminal act, and then induce commission of the crime so that the Government may prosecute." Jacobson v. United States, 503 U.S. 540, 548 (1992). A valid entrapment defense has two related elements: (1) Government inducement of the crime, and (2) the defendant's lack of predisposition to engage in the criminal conduct. Mathews v. United States, 485 U.S. 58, 63 (1988).

As described above, ATF has now concluded that it misclassified some bump-stock-type devices and therefore initiated this rulemaking pursuant to the requirements of the APA. An agency is entitled to correct its mistakes. See Williams Gas Processing-Gulf Coast Co. v. FERC, 475 F.3d 319, 326 (D.C. Cir. 2006) ("[I]t is well understood that [a]n agency is free to discard precedents or practices it no longer believes correct. Indeed we expect that an [] agency may well change its past practices with advances in knowledge in its given field or as its relevant experience and expertise expands. If an agency decides to change course, however, we require it to supply a reasoned analysis indicating that prior policies and standards are being deliberately changed, not casually ignored."). This rulemaking procedure is specifically designed to notify the public about changes in ATF's interpretation of the NFA and GCA and to help the public avoid the unlawful possession of a machinegun. It is important to note that at no time did ATF induce any member of the public to commit a crime. The ANPRM, NPRM, and this final rule have followed the statutory process for ensuring that the public is aware of the correct classification of bump-stock-type devices under the law, and that continued possession of such devices is prohibited. Anyone currently in possession of a bump-stock-type device is not acting unlawfully unless they fail to relinquish or destroy their device after the effective date of this regulation.

ii. Violates Takings Clause and Due Process Clause

Comments Received

Over 1,200 commenters objected that the rule will violate the Takings Clause of the Fifth Amendment, which provides "private property [shall not] be taken for public use, without just compensation." Some commenters said that the Takings Clause requires the Government to compensate manufacturers for their present and future loss of revenues. Many other commenters further indicated that the Government would owe compensation to owners of bump-stock-type devices because the Government would effectively be taking personal property for public safety, which is a form of public use. They cited Horne v. Department of Agriculture, 135 S. Ct. 2419, 2428 (2015), for the proposition that mandating relinquishment of property constitutes a physical

taking and requires compensation. One commenter contrasted this rule with the regulation at issue in Andrus v. Allard, 444 U.S. 51 (1979), which prohibited the commercial sale of eagle body parts gathered before 1940. The commenter observed that the Supreme Court held the eagle-part regulation was not a regulatory taking because it did not compel the surrender of the body parts and imposed no physical invasion or restraint upon them. Id. at 65-66. By contrast, the commenter noted, owners of bump-stock-type devices under the regulation would be compelled to surrender their devices or face criminal penalties.

Several commenters also stated that "for this regulation to be Constitutional each and every owner of a bump stock, or other devices captured in this regulation not yet named, must be given their day in court to present evidence and an argument as to why their property shouldn't be taken without compensation at a minimum."

Many commenters separately opined that the Department did not include the cost of compensation in its cost-benefit analysis and several proposed estimated costs of such compensation. Those comments are addressed in Part IV.I.1.

*66524 Department Response

The Department does not agree that classifying bump-stock-type devices as machineguns results in the unlawful taking of property "for public use, without just compensation." U.S. Const. amend. V. It is well established that "the nature of the [government's] action is critical in takings analysis." Keystone Bituminous Coal Ass'n v. DeBenedictis, 480 U.S. 470, 488 (1987); accord Penn Cent. Transp. Co. v. City of New York, 438 U.S. 104, 124 (1978) ("character of the government action" has "particular significance"). The Department's action here, classifying bump-stock-type devices as machineguns subject to the NFA and GCA, does not have the nature of a taking.

A restriction on "contraband or noxious goods" and dangerous articles by the government to protect public safety and welfare "has not been regarded as a taking for public use for which compensation must be paid." Acadia Tech., Inc. v. United States, 458 F.3d 1327, 1332 (Fed. Cir. 2006); see also United States v. \$7,990.00 in U.S. Currency, 170 F.3d 843, 845 (8th Cir. 1999) ("forfeiture of contraband is an exercise of the government's police power" and does not qualify as a taking). [FN7] The Takings Clause was "not intended as a limitation of the exercise of those police powers which are necessary to the tranquility of every well-ordered community, nor of that general power over private property which is necessary for the orderly existence of all governments. It has always been held that the legislature may make police regulations, although they may interfere with the full enjoyment of private property, and though no compensation is given." Chi., Burlington & Quincy Ry. Co. v. Illinois, 200 U.S. 561, 594 (1906) (internal quotation marks omitted); see, e.g., Holliday Amusement Co. of Charleston v. South Carolina, 493 F.3d 404, 409-11 (4th Cir. 2007) (upholding State prohibition of video gaming machines without compensation).

In the takings context, the use of the term "police power" in connection with Federal regulation does not posit the existence of a "plenary police power" at the Federal level. Cf. United States v. Lopez, 514 U.S. 549, 566 (1995). Rather, it refers to "the power of the federal government to engage," pursuant to one or more of its enumerated powers, "in activities not unlike those engaged in by the states under their inherent sovereign powers" to protect the public welfare. Fla. Rock Indus., Inc. v. United States, 18 F.3d 1560, 1568 n.17 (Fed. Cir. 1994).

In Mugler v. Kansas, 123 U.S. 623, 668-69 (1887), for example, the Supreme Court rejected a distiller's argument that a State constitutional amendment prohibiting the manufacture and sale of intoxicating liquors was an unconstitutional taking. The Court explained that the government's power to prohibit the "use by individuals of their property, as will be prejudicial to the health, the morals, or the safety of the public, is not, and, consistently with the existence and safety of organized society, cannot be, burdened with the condition that the state must compensate such individual owners for pecuniary losses they may sustain, by reason of their not being permitted, by a noxious use of their property, to inflict injury upon the community." Id. at 669. Similarly, the Supreme Court held in Miller v. Schoene, 276 U.S. 272, 280 (1928), that Virginia was not required to compensate owners of red cedar trees for the value of trees that the State had ordered destroyed to prevent the spread of a disease that threatened local apple orchards. "[W]here the public interest is involved," the Court observed, "preferment of that interest over the property interest of the individual, to the extent even of its destruction, is one of the distinguishing characteristics of every exercise of the police power which affects property." Id. at 279-80. Lower courts have likewise deemed the Takings Clause

inapplicable to governmental regulation of dangerous personal property for public-safety reasons. See, e.g., Garcia v. Vill. of Tijeras, 767 P.2d 355 (N.M. Ct. App. 1988) (village ordinance banning possession of pit bulls was "a proper exercise of the Village's police power" and not a taking).

Consistent with these cases, courts have rejected arguments that restrictions on the possession of dangerous firearms, like machineguns, are takings requiring just compensation. In Akins v. United States, 82 Fed. Cl. 619 (2008), for example, the Court of Federal Claims held that ATF's ultimate classification of the Akins Accelerator as a machinegun, see supra Part III, was not a taking. The court reasoned that ATF had acted "pursuant to the police power conferred on it by Congress" rather than by exercising eminent domain, and that the plaintiff lacked a sufficient property interest because he had "voluntarily entered an area subject to pervasive federal regulation—the manufacture and sale of firearms." Id. at 623-24; see also Bennis v. Michigan, 516 U.S. 442, 452 (1996) ("The government may not be required to compensate an owner for property which it has already lawfully acquired under the exercise of governmental authority other than the power of eminent domain."). Similar reasoning led the District of Columbia Court of Appeals to hold that a DC law prohibiting machineguns and requiring their disposal or removal was not a taking. Fesjian v. Jefferson, 399 A.2d 861, 865-66 (1979). These precedents support the Department's conclusion that the prohibition of bump-stock-type devices as machineguns does not have the character of a compensable taking within the meaning of the Fifth Amendment.

The Department acknowledges that a panel of the U.S. Court of Appeals for the Ninth Circuit recently upheld a preliminary injunction against the Attorney General of California that relied in part on the Takings Clause in prohibiting the State from implementing restrictions on firearm magazines that hold more than 10 rounds. Duncan v. Becerra, No. 17-56081, 2018 WL 3433828 (9th Cir. July 17, 2018). The Ninth Circuit's order essentially adopted the district court's analysis of the Takings Clause question. See id. at *3. The district court's reasoning on the takings question was closely intertwined with the Second Amendment inquiry, and rested on the conclusion that it was "dubious" for California to deem large-capacity magazines a public nuisance given the Supreme Court's observation that "[g]uns in general are not deleterious devices or products or obnoxious waste materials." Duncan v. Becerra, 265 F. Supp. 3d 1106, 1137 (S.D. Cal. 2017) (internal quotation marks omitted) (quoting Staples v. United States, 511 U.S. 600, 610 (1994)). But regulation of bump-stock-type devices is fundamentally distinguishable from California's prohibition on possessing such magazines. As discussed, and as Heller indicates, dangerous and unusual weapons are not entitled to Second Amendment protection, and may indeed qualify as deleterious devices or contraband. Other district courts have followed the reasoning of cases like Akins and Fesjian and rejected takings challenges to California firearm restrictions. See Rupp v. Becerra, 2018 WL 2138452, at *8-9 (C.D. Cal. May 9, 2018) (restrictions on "assault weapons"); Wiese v. Becerra, 263 F. Supp. 3d 986, 995 (E.D. Cal. 2017) (prohibition of large-capacity gun magazines).

Finally, the Department does not agree that each owner of a bump-stock-type device has a due-process right to a hearing in connection with the promulgation of this rule. The rule clarifies the scope of the NFA and GCA, general legislative enactments, with respect to bump-stock-type devices. "Official action that is legislative in nature is not subject to the notice and hearing requirements of the due process *66525 clause." Interport Pilots Agency, Inc. v. Sammis, 14 F.3d 133, 142 (2d Cir. 1994); see also, e.g., Bi-Metallic Inv. Co. v. State Bd. of Equalization, 239 U.S. 441, 445 (1915) ("General statutes within the state power are passed that affect the person or property of individuals, sometimes to the point of ruin, without giving them a chance to be heard."). Furthermore, the Department's conclusion that bump-stock-type devices are machineguns under the NFA and GCA means that owners lack a cognizable property interest in these devices for due-process purposes. As the Fifth Circuit held in Cooper v. City of Greenwood, firearms covered by the NFA are "contraband per se," and "[c]ourts will not entertain a claim contesting the confiscation of contraband per se because one cannot have a property right in that which is not subject to legal possession." 904 F.2d 302, 305 (1990).

c. Violates Ex Post Facto Clause and Bill of Attainder Clause

Comments Received

Numerous commenters asserted that the proposed rule would violate article I, section 9, clause 3 of the Constitution, which states, "No Bill of Attainder or ex post facto Law shall be passed." One gun-rights nonprofit organization, quoting United States

v. O'Neal, 180 F.3d 115, 122 (4th Cir. 1999), stated that even though this is a regulatory action, the "sanction or disability it imposes is 'so punitive in fact' that the law 'may not legitimately be viewed as civil in nature.'

Another commenter, the Maryland Shall Issue organization, argued that ATF's reliance on 18 U.S.C. 922(o) creates an impermissible ex post facto law because current owners and manufacturers of bump-stock-type devices "became felons as of the date and time they took possession of a bump stock, even though such possession and manufacture was then expressly permitted by prior ATF interpretations." The commenter cited Calder v. Bull, 3 U.S. (3 Dall.) 386, 390 (1798), and Peugh v. United States, 569 U.S. 530 (2013), to support its arguments. It argued that the ex post facto issue can be avoided by holding that the exemption in 18 U.S.C. 922(o)(2)(A) applies where bump-stock-type devices are possessed under "the authority" of prior ATF rulings. Furthermore, the commenter, citing Bowen v. Georgetown University Hospital, 488 U.S. 204, 208 (1988), stated that the Supreme Court has held that an agency cannot engage in retroactive rulemaking without specific congressional authorization. Relying on Fernandez-Vargas v. Gonzales, 548 U.S. 30, 36 (2006), the commenter stated there is no question that the proposed rule has a retroactive effect because the rule would "affect" existing rights and impose new liabilities on the past and continued possession of bump-stock-type devices.

At least one commenter argued the rule is an unconstitutional bill of attainder because the rule restricts particular brands of stocks, per the Department's definition, while not at the same time restricting all brands of stocks. Similarly, another commenter stated the regulation appears punitive in nature, and abusively narrow in targeting Slide Fire, a seller of bump-stock-type devices that has already announced the close of its business.

Department Response

The Department disagrees that the proposed rule violates the Ex Post Facto or Bill of Attainder Clauses. The rule would criminalize only future conduct, not past possession of bump-stock-type devices that ceases by the effective date of this rule. In Calder v. Bull, 3 U.S. (3 Dall.) 386 (1798), the Supreme Court set out four types of laws that violate the Ex Post Facto Clause:

1st. Every law that makes an action, done before the passing of the law, and which was innocent when done, criminal; and punishes such action. 2nd. Every law that aggravates a crime, or makes it greater than it was, when committed. 3rd. Every law that changes the punishment, and inflicts a greater punishment, than the law annexed to the crime, when committed. 4th. Every law that alters the legal rules of evidence, and receives less, or different, testimony, than the law required at the time of the commission of the offence, in order to convict the offender.

Id. at 390. Citing Calder, the Supreme Court has explained that "[t]o fall within the ex post facto prohibition, a law must be retrospective—that is, it must apply to events occurring before its enactment—and it must disadvantage the offender affected by it by altering the definition of criminal conduct or increasing the punishment for the crime." Lynce v. Mathis, 519 U.S. 433, 441 (1997) (emphasis added; citations and internal quotation marks omitted). The Federal courts have thus been careful to distinguish statutes and regulations that violate the Ex Post Facto Clause from those that criminalize only future conduct and are therefore not "retrospective," including in the firearms possession context. For example, following passage of the Lautenberg Amendment (18 U.S.C. 922(g)(9)), which made it unlawful for persons convicted of a misdemeanor crime of domestic violence to possess a firearm, several defendants argued that the law violated the Ex Post Facto Clause. One defendant argued that he had a prior conviction for a misdemeanor crime of domestic violence, but lawfully possessed a firearm before 18 U.S.C. 922(g) (9) became law. United States v. Mitchell, 209 F.3d 319 (4th Cir. 2000). The defendant argued that, as applied to him, the statute violated the Ex Post Facto Clause because the new law penalized him for his previous domestic violence conviction. However, the Fourth Circuit disagreed, noting that "[i]t is immaterial that Mitchell's firearm purchase and domestic violence conviction occurred prior to § 922(g)(9)'s enactment because the conduct prohibited by § 922(g)(9) is the possession of a firearm." Id. at 322; see also United States v. Pfeifer, 371 F.3d 430, 436-37 (8th Cir. 2004); United States v. Meade, 986 F. Supp. 66, 69 (D. Mass. 1997), aff'd, 175 F.2d 215 (1st Cir. 1999); United States v. Brady, 26 F.3d 282, 290-91 (2d Cir. 1994); United States v. Gillies, 851 F.2d 492, 495-96 (1st Cir. 1988) (Breyer, J.); United States v. D'Angelo, 819 F.2d 1062, 1065-66 (11th Cir. 1987).

This rule brings clarity to the meaning of "machinegun," and makes clear that individuals are subject to criminal liability only for possessing bump-stock-type devices after the effective date of regulation, not for possession before that date. No action taken before the effective date of the regulation is affected under the rule. Although regulating past possession of a firearm may implicate the Ex Post Facto Clause, regulating the continued or future possession of a firearm that is already possessed does not. See Benedetto v. Sessions, No. CCB-17-0058; 2017 WL 4310089, at *5 (D. Md. Sept. 27, 2017) ("Whether a gun was purchased before the challenged law was enacted . . . is immaterial to whether the challenged law regulates conduct that occurred before or after its enactment."); see also Samuels v. McCurdy, 267 U.S. 188, 193 (1925) (rejecting Ex Post Facto Clause challenge to statute that prohibited the post-enactment possession of intoxicating liquor, even when the liquor was lawfully acquired before the statute's enactment). For this reason, the Department disagrees with commenters' assertions that the rule violates the Ex Post Facto Clause.

Relatedly, the Department also disagrees with the view that 18 U.S.C. 922(o)(2)(A) provides the authority to permit continued possession of bump-stock-type devices "under the *66526 authority" of prior ATF rulings. Section 922(o)(2)(A) is inapplicable because, among other reasons, ATF's letter rulings regarding bump-stock-type devices did not purport to authorize the possession of devices qualifying as machineguns under section 922(o)(1); instead, ATF advised individuals that certain devices did not qualify as machineguns in the first place, a position that ATF has now reconsidered. Furthermore, section 922(o)(2)(A) does not empower ATF to freely grant exemptions from section 922's general prohibition of machineguns.

The Department also disagrees that the proposed rule constitutes a bill of attainder. The Supreme Court has highlighted the fact that the Bill of Attainder Clause applies only to Congress, noting that "[t]he distinguishing feature of a bill of attainder is the substitution of a legislative for a judicial determination of guilt." De Veau v. Braisted, 363 U.S. 144, 160 (1960) (emphasis added). The Court has also described a bill of attainder as "a law that legislatively determines guilt and inflicts punishment upon an identifiable individual without provision of the protections of a judicial trial." Nixon v. Adm'r of Gen. Servs., 433 U.S. 425, 468 (1977) (emphasis added). Accordingly, the Bill of Attainder Clause does not apply "to regulations promulgated by an executive agency." Paradissiotis v. Rubin, 171 F.3d 983, 988-89 (5th Cir. 1999) (citing Walmer v. U.S. Dep't of Defense, 52 F.3d 851, 855 (10th Cir. 1995) ("The bulk of authority suggests that the constitutional prohibition against bills of attainder applies to legislative acts, not to regulatory actions of administrative agencies.")); see also Korte v. Office of Personnel Mgmt., 797 F.2d 967, 972 (Fed. Cir. 1986); Marshall v. Sawyer, 365 F.2d 105, 111 (9th Cir. 1966). Even if the proposed rule were subject to the Bill of Attainder Clause, it would pass constitutional muster. The fact that Slide Fire announced the close of its business does not make this rule a bill of attainder; that company is not being singled out, as the proposed rule applies to all similar devices. Further, the regulation of all machineguns of this type is not a "punishment" as is required for an enactment to be unlawful bill of attainder. See Nixon, 433 U.S. at 473.

d. Violates Fourth Amendment

Comments Received

Many commenters also raised objections on grounds that the proposed rule violates the Fourth Amendment's guarantee against unreasonable searches and seizures. Commenters believed that because bump-stock-type devices essentially would become contraband under the rule, "mandating [their] surrender to authorities would violate the 4th Amendment protection from seizure without due process."

Department Response

Although commenters cite the Fourth Amendment, it is unclear how a "search" or "seizure" would result from this rule. The Department is unaware of any precedent supporting the view that a general regulatory prohibition of possession of certain contraband can violate the Fourth Amendment. A seizure in "[v]iolation of the Fourth Amendment requires an intentional acquisition of physical control," Brower v. Cty. of Inyo, 489 U.S. 593, 596 (1989), and the final rule makes clear that current possessors of bump-stock-type devices are not required to surrender the devices to the authorities. Instead, current possessors may lawfully dispose of their devices in other ways, as discussed below in Part IV.D.7.

e. Violates Ninth and Tenth Amendments

Comments Received

Various commenters opposed to the rule stated that it would violate the Ninth and Tenth Amendments of the Constitution. The Ninth Amendment provides: "The enumeration in the Constitution, of certain rights, shall not be construed to deny or disparage others retained by the people." The Tenth Amendment provides: "The powers not delegated to the United States by the Constitution, nor prohibited by it to the States, are reserved to the States respectively, or to the people." One commenter said, "The BATF is another agency whose existence violates the 10th Amendment." Another commenter argued, "as an accessory, the federal government cannot ban [bump-stock-type devices], because only the states can ban them." A handful of other commenters stated that the rule violates States' rights under the Tenth Amendment because it violates the "right to keep and bear arms" provisions of 44 State constitutions.

Department Response

The Department disagrees that the proposed rule violates the commenters' rights under the Ninth Amendment. The Ninth Amendment "does not confer substantive rights in addition to those conferred by other portions of our governing law. The Ninth Amendment 'was added to the Bill of Rights to ensure that the maxim expressio unius est exclusio alterius would not be used at a later time to deny fundamental rights merely because they were not specifically enumerated in the Constitution.' "Gibson v. Matthews, 926 F.2d 532, 537 (6th Cir. 1991) (citing Charles v. Brown, 495 F. Supp. 862, 863-64 (N.D. Ala. 1980)). Federal "circuit courts across the country have consistently held that the Ninth Amendment does not impinge upon Congress's authority to restrict firearm ownership." United States v. Finnell, 256 F. Supp. 2d 493, 498 (E.D. Va. 2003).

The Department also disagrees that the rule violates the Tenth Amendment. Commenters seemingly argued that the powers exercised by the Department in issuing the rule were "powers not delegated to the United States by the Constitution, nor prohibited by it to the States." However, Federal courts have long held that the NFA, GCA, and implementing regulations do not violate the Tenth Amendment. The NFA does not "usurp[] police power reserved to the States." United States v. Miller, 307 U.S. 174, 176 (1939). Further, "[b]ecause § 922(o) was a proper exercise of Congress's enumerated authority under the Commerce Clause, and because it does not compel, let alone commandeer, the states to do anything, the statute does not violate the Tenth Amendment." United States v. Kenney, 91 F.3d 884, 891 (7th Cir. 1996).

f. Lack of Statutory Authority

Comments Received

A total of 47,863 commenters, most of whom sent form submissions opposed to the proposed rule, argued that ATF lacks statutory authority to regulate bump-stock-type devices. Many commenters said that ATF, by its own admission, repeatedly stated it could not regulate such devices. Commenters generally expressed the view that because bump-stock-type devices are not firearms, ATF has no authority under the NFA or GCA to regulate them. Some commenters contended that 6 U.S.C. 531 gives ATF only narrow statutory authority and does not provide ATF general authority to regulate the safety of firearms, accessories, or parts.

In addition, numerous commenters argued that, as the term "machinegun" is already clearly defined in the NFA, only Congress can make changes to the definition and regulate bump-stock-type devices. Furthermore, commenters stated that the agency's interpretation of the term "machinegun" would not be entitled to deference under Chevron U.S.A. v. Natural Resources Defense Council, 467 U.S. 837 (1984).

*66527 Department Response

The Attorney General is responsible for enforcing the NFA, as amended, and the GCA, as amended. This includes the authority to promulgate regulations necessary to enforce the provisions of these statutes. See 18 U.S.C. 926(a); 26 U.S.C. 7801(a)(2)(A), 7805(a). The statutory provision cited by some commenters, 6 U.S.C. 531, is the provision of the Homeland Security Act of 2002, Public Law 107-296, 116 Stat. 2135, that transferred the powers the Secretary of the Treasury had with respect to ATF to the Attorney General when ATF was transferred to the Department of Justice. Accordingly, the Attorney General is now responsible for enforcing the NFA and GCA, and he has delegated the responsibility for administering and enforcing the NFA and GCA to the Director of ATF, subject to the direction of the Attorney General and the Deputy Attorney General. See 28 CFR 0.130(a)(1)-(2).

"Because § 926 authorizes the [Attorney General] to promulgate those regulations which are 'necessary,' it almost inevitably confers some measure of discretion to determine what regulations are in fact 'necessary." Nat'l Rifle Ass'n v. Brady, 914 F.2d 475, 479 (4th Cir. 1990). In the original GCA implementing regulations, ATF provided regulatory definitions of the terms that Congress did not define in the statute. 33 FR 18555 (Dec. 14, 1968). Since 1968, ATF has occasionally added definitions to the implementing regulations. See, e.g., 63 FR 35520 (June 30, 1998). Similarly, 26 U.S.C. 7805(a) states that "the [Attorney General] shall prescribe all needful rules and regulations for the enforcement of this title." As is the case with the GCA, ATF has provided regulatory definitions for terms in the NFA that Congress did not define, such as "frame or receiver" and "manual reloading." See, e.g., 81 FR 2658 (Jan. 15, 2016). These definitions were necessary to explain and implement the statute, and do not contradict the statute. Federal courts have recognized ATF's authority to classify devices as "firearms" under Federal law. See, e.g., Demko v. United States, 44 Fed. Cl. 83, 93 (1999) (destructive device); Akins v. United States, 312 F. App'x 197 (11th Cir. 2009) (per curiam) (machinegun).

This rule is based upon this authority. Further, ATF has provided technical and legal reasons why bump-stock-type devices enable automatic fire by a single function of the trigger, and thus qualify as machinegun conversion devices, not mere "accessories." ATF has regularly classified items as machinegun "conversion devices" or "combinations of parts," including auto sears (ATF Ruling 81-4) and the Akins Accelerator (ATF Ruling 2006-2).

The Department agrees that regulatory agencies may not promulgate rules that conflict with statutes. However, the Department disagrees that the rule conflicts with the statutes or is in contravention of administrative-law principles. The rule merely defines terms used in the definition of "machinegun" that Congress did not—the terms "automatically" and "single function of the trigger"—as part of implementing the provisions of the NFA and GCA.

When a court is called upon to review an agency's construction of the statute it administers, the court looks to the framework set forth in Chevron U.S.A., Inc. v. Natural Resources Defense Council, Inc., 467 U.S. 837, 842-43 (1984). The first step of the Chevron review is to ask "whether Congress has directly spoken to the precise question at issue." Id. at 842. "If the intent of Congress is clear, that is the end of the matter; for the court, as well as the agency, must give effect to the unambiguously expressed intent of Congress. If, however, the court determines Congress has not directly addressed the precise question at issue the question for the court is whether the agency's answer is based on a permissible construction of the statute." Id. at 842-43 (footnote omitted).

The Department believes that this rule's interpretations of "automatically" and "single function of the trigger" in the statutory definition of "machinegun" accord with the plain meaning of those terms. Moreover, even if those terms are ambiguous, this rule rests on a reasonable construction of them. Although Congress defined "machinegun" in the NFA, 26 U.S.C. 5845(b), it did not further define the components of that definition. See, e.g., United States v. One TRW, Model M14, 7.62 Caliber Rifle, 441 F.3d 416, 419 (6th Cir. 2006) (noting that the NFA does not define the phrases "designed to shoot" or "can be readily restored" in the definition of "machinegun"). Congress thus implicitly left it to the Department to define "automatically" and "single function of the trigger" in the event those terms are ambiguous. See Chevron, 467 U.S. at 844. Courts have appropriately recognized that the Department has the authority to interpret elements of the definition of "machinegun" like "automatically" and "single function of the trigger." See York v. Sec'y of Treasury, 774 F.2d 417, 419-20 (10th Cir. 1985); United States v. Dodson, 519 F. App'x 344, 348-49 & n.4 (6th Cir. 2013); cf., e.g., Firearms Import/Export Roundtable Trade Grp. v. Jones, 854

F. Supp. 2d 1, 18 (D.D.C. 2012) (upholding ATF's interpretation of 18 U.S.C. 925(d) to ban importation of certain firearm parts under Chevron "step one"); Modern Muzzleloading, Inc. v. Magaw, 18 F. Supp. 2d 29, 35-36 (D.D.C. 1998) ("since the ATF's classification of [a firearm as not antique] 'amounts to or involves its interpretation' of the GCA, a statute administered by the ATF, we review that interpretation under the deferential standard announced in Chevron").

Second, the Department's construction of those terms is reasonable under Chevron. As explained in more detail in Part III, the Department is clarifying its regulatory definition of "automatically" to conform to how that word was understood and used when the NFA was enacted in 1934. See Olofson, 563 F.3d at 658. And the Department is reaffirming that a single pull of the trigger is a single function of the trigger, consistent with the NFA's legislative history, ATF's previous determinations, and judicial precedent. See, e.g., Akins, 312 F. App'x at 200. This rule is therefore lawful under the NFA and GCA even if the operative statutory terms are ambiguous.

g. Violation of the Americans With Disabilities Act

Comments Received

A few commenters indicated that bump-stock-type devices are assistive devices for people with nerve damage or a physical disability. A few commenters further stated that the regulation could be a violation of the Americans with Disabilities Act (ADA), 42 U.S.C. ch. 126. In particular, one commenter claimed that under the ADA, an individual can establish coverage under the law by "showing that he or she has been subjected to an action prohibited under the Act because of an actual or perceived physical [condition] that is not transitory and minor." The commenter asserted that this regulation constitutes such "an action" and would violate the civil rights of a diverse group of persons with disabilities, including homeowners, veterans, target shooters, and hunters.

Department Response

The Department disagrees with commenters that the final rule would violate the ADA. While the ADA applies to State and local governments, it does not apply to the Executive Branch of the Federal Government. See 42 U.S.C. 12131(1) (defining "public entity" as *66528 any State or local government; any department, agency, special purpose district, or other instrumentality of a State or States or local government; and the National Railroad Passenger Corporation, and any commuter authority). Accordingly, because ATF is a Federal agency that is not subject to the ADA, the commenters' assertion that ATF's regulation would violate the ADA is incorrect.

While not mentioned by commenters, ATF is covered by section 504 of the Rehabilitation Act of 1973, which prohibits discrimination, solely by reason of disability, in Federally conducted programs and activities. 29 U.S.C. 794(a) (stating that "[n]o otherwise qualified individual with a disability . . . shall, solely by reason of her or his disability, be excluded from the participation in, be denied the benefits of, or be subjected to discrimination under . . . any program or activity conducted by any Executive agency"). As detailed above, the sole purpose of this rulemaking is to clarify that bump-stock-type devices satisfy the statutory definition of "machinegun," as defined by Congress in the NFA and GCA. While a few commenters made general assertions that bump-stock-type devices can be used as assistive devices for people with disabilities, none submitted any specific information to suggest that this rule would cause qualified individuals with disabilities, solely by reason of their disability, to be excluded from the participation in, subjected to discrimination under, or denied the benefits of any program or activity of ATF. Accordingly, there is nothing in the record to suggest that this rule would raise concerns under the Rehabilitation Act.

2. Politically Motivated and Emotional Response

Comments Received

At least 41,954 commenters opposed to the rule, including the 40,806 comments submitted through the NAGR petition, asserted that the proposed rule is a political or knee-jerk response to a tragic incident. Many commenters suggested that the proposed rule reflected political pressure and would be a hasty response that would not achieve real benefits and could lead to confiscating all

guns. A handful of commenters even asserted they would support the elimination of ATF. Petitions submitted through NAGR portray the rule as a response to "the anti-gun left . . . so they can turn millions of commonly owned firearms into 'illegal guns' with the stroke of a pen." They cautioned that this rule unfairly capitalizes on the misfortunes of others to push political agendas and that facts should not be thrown aside. Another commenter said that this rule will be tainted because from the beginning the President made clear he had no intention of instructing the Department to abide by the public comments, having declared that bump-stock-type devices "will soon be out" after the "mandated comment period" notwithstanding possible congressional action.

Department Response

While the Las Vegas tragedy brought attention to bump-stock-type devices and requests from Congress and nongovernmental organizations prompted ATF to review its classification of bump-stock-type devices, the Department disagrees that this rulemaking is an unreasoned reaction to recent events. As discussed in the NPRM, see Part III above, ATF recognized that its prior classifications determining only some bump-stock-type devices to be machineguns did not include extensive legal analysis of certain terms that are significant to defining "machinegun" under the NFA and were not always consistent. This final rule defines the terms "automatically" and "single function of the trigger" to clarify the meaning of machinegun and to make clear that bump-stock-type devices are machineguns under the meaning of the statute. The Department further notes that the President specifically directed it to clarify the legal status of bump-stock-type devices through the administrative "procedures the law prescribes," including notice and comment, 83 FR 7949 (Feb. 23, 2018).

3. Not Used in Criminal Activity

Comments Received

Numerous commenters expressed that besides the shooting in Las Vegas, there is no evidence that bump-stock-type devices have been used in the commission of crimes. Several commenters stated that, pursuant to a Freedom of Information Act request, they asked ATF and the Federal Bureau of Investigation (FBI) for any records on whether bump-stock-type devices have been used in crimes and that they received no confirmation affirming the existence of any such records. Moreover, some commenters stated that ATF provided no evidence or justification that bump-stock-type devices will be used more frequently in future crimes. They argued that if the agency cannot show what materials it relied on to regulate bump-stock-type devices for purposes of public safety, then the rulemaking is arbitrary and capricious under the APA. Commenters cited judicial decisions such as Motor Vehicle Manufacturers Ass'n v. State Farm Mutual Automobile Insurance Co., 463 U.S. 29, 52 (1983), in which the Supreme Court held that when an agency rescinds or changes its stance on a regulation, it must explain the evidence underlying its decision and offer a rational connection between the facts found and the choice made.

Many commenters also noted that there is still no confirmation or documentation, despite requests, from Federal agencies confirming that bump-stock-type devices were actually used in the Las Vegas incident, and that ATF has not issued a "Report of Technical Examination" (ATF Form 3311.2) for any of the firearms used in the incident. With questions remaining about the Las Vegas criminal investigation and doubts as to whether bump-stock-type devices were actually used, commenters argued that ATF has no basis to promulgate a regulation that, as ATF declared in the NPRM, "would affect the criminal use of bump-stock-type devices in mass shootings, such as the Las Vegas shooting incident." 83 FR at 13454.

These arguments were frequently raised alongside concerns that the cost-benefit analysis did not address the fact that there would be few benefits to the rule given that bump-stock-type devices have supposedly been used in only one crime. These concerns are addressed in Part IV.1.5.

Department Response

The Department disagrees that ATF seeks to regulate bump-stock-type devices merely because they were, or have the potential to be, used in crime. The NPRM stated that the Las Vegas shooting made "individuals aware that these devices exist—potentially

including persons with criminal or terrorist intentions—and made their potential to threaten public safety obvious." 83 FR at 13447. But the NRPM also provided a detailed analysis explaining that bump-stock-type devices must be regulated because they satisfy the statutory definition of "machinegun" as it is defined in the NFA and GCA. Id. at 13447-48.

Commenters conflate the legal basis for ATF's regulation of bump-stock-type devices with the background information that was provided as context for the reason ATF revisited its previous classifications. In the NPRM, ATF explained that the tragedy in Las Vegas gave rise to requests from Congress and nongovernmental organizations that ATF examine its past *66529 classifications and determine whether bump-stock-type devices currently on the market constitute machineguns under the statutory definition. Id. at 13446. While part of the Department's mission is to enhance public safety, the impetus for the change in classification was not, as commenters argued, that the device may potentially pose a public safety threat but because, upon review, ATF believes that it satisfies the statutory definition of "machinegun." This rule reflects the public safety objectives of the NFA and GCA, but the materials and evidence of public safety implications that commenters seek have no bearing on whether these devices are appropriately considered machineguns based on the statutory definition.

In Motor Vehicle Manufacturers Ass'n v. State Farm Mutual Automobile Insurance Co., 463 U.S. 29 (1983), the Supreme Court wrote that an "agency must examine the relevant data and articulate a satisfactory explanation for its action including a 'rational connection between the facts found and the choice made.' "Id. at 43 (quoting Burlington Truck Lines, Inc. v. United States, 371 U.S. 156, 168 (1962)). However, that case involved a Federal agency that rescinded a final rule—based on data and policy choices—shortly after publication, arguing that that rule was no longer necessary for a multitude of reasons, including that the costs outweighed the safety benefits. See id. at 38-39. The Supreme Court recognized that any change requires a reasoned basis, noting that "[i]f Congress established a presumption from which judicial review should start, that presumption—contrary to petitioners' views—is not against safety regulation, but against changes in current policy that are not justified by the rulemaking record." Id. at 42. However, the revocation in that case involved a discretionary policy decision, and did not depend solely upon statutory construction. The bump-stock-type device rule is not a discretionary policy decision based upon a myriad of factors that the agency must weigh, but is instead based only upon the functioning of the device and the application of the relevant statutory definition. Therefore, the Department does not believe that this rule conflicts with State Farm.

4. Will Not Enhance Public Safety

Comments Received

More than 1,100 commenters indicated that a regulation on bump-stock-type devices would have no measurable effect on the current rate of crime or enhance public safety. One commenter argued that the use of bump-stock-type devices by mass shooters might actually save lives based on his experience that using the device can result in a rifle jamming, misfeeding, or misfiring, which would be the best time to disrupt a shooter. Other commenters noted that bump-stock-type devices actually impede a shooter's ability to fire accurately. Commenters stated that there is currently no empirical evidence that further firearms regulations would reduce crime or safeguard people more effectively. One commenter, for example, estimated that out of the tens of thousands of gun deaths per year, most of which he stated are suicides, the proposed rule would only impact a minute percentage, while another commenter opined that crime rate data from the FBI show that areas with more firearms restrictions have more crime. A handful of commenters pointed to Chicago as having some of the most stringent gun restrictions yet continuing to have high rates of homicide and gun-related deaths that "surpass[] war zones."

Many commenters opposed to the regulation maintained that neither this rule nor any new gun laws will prevent criminals or people with malicious intent from proceeding to commit crimes. Several voiced the opinion that people determined to kill many people will find other means, such as cars, knives, toxic substances, homemade explosives, or any other object. The problem, they argued, is not the object, but the person who controls it—and that criminals will do whatever they can to accomplish unlawful ends. One commenter, identifying as a law enforcement officer, wrote that he frequently encounters prohibited possessors who still somehow obtain a firearm and do not care about the consequences. Another commenter stated that the fact that the shooter in Las Vegas was well aware that murder is unlawful but chose to ignore the law only serves as proof that laws do not stop evildoers.

Additionally, several hundred commenters stated that ATF should focus its time and energy on enforcing existing gun laws and regulations rather than issuing a new one. One commenter, a former corrections officer from Baltimore, suggested that time would be better spent prosecuting criminals for crimes on the books. Similarly, another commenter noted that "[w]hen the courtrooms are revolving doors that push gang members right back out," the problem is not the lack of laws but rather a lack of tools and resources devoted to enforcing the existing laws. Some commenters remarked that had there been better policing, certain mass shootings could have been avoided.

Department Response

The Department agrees with the commenters that the existing laws should be enforced, and the Department is committed to addressing significant violent crime problems facing our communities. No law or regulation entirely prevents particular crimes, but the Las Vegas shooting illustrated the particularly destructive capacity of bump-stock-type devices when used in mass shooting incidents. In any event, the impetus for this rule is the Department's belief, after a detailed review, that bump-stock-type devices satisfy the statutory definition of "machinegun." Through the NFA and GCA, Congress took steps to regulate machineguns because it determined that machineguns were a public safety threat. ATF must therefore classify devices that satisfy the statutory definition of "machinegun" as machineguns. The proposed rule is thus lawful and necessary to provide public guidance on the law.

5. Punishes Law-Abiding Citizens

Comments Received

At least 2,103 commenters opposed the rule on the ground that it would punish law-abiding citizens and would turn them instantly into potential felons. They asserted that hundreds of thousands of law-abiding citizens are being punished for the acts of one evil person and that the overwhelming majority use bump-stock-type devices lawfully and for fun. Many commenters, some of whom do not own a bump-stock-type device, objected that owners of these devices would become felons overnight just for owning a piece of plastic that is not needed to achieve bump firing. They further pointed out that because there is no grandfathering provision, law-abiding gun owners would have to surrender any bump-stock-type devices after having spent money to buy them. Many raised these objections in connection with concerns that the rule is unconstitutional under the Ex Post Facto Clause and the Takings Clause of the Constitution, as already discussed in this preamble. Moreover, some commenters, concerned that the rule's proposed language could later apply to other trigger assemblies, stated that thousands of law-abiding citizens may eventually become criminals overnight for simply owning a non-factory trigger.

*66530 Department Response

The Department disagrees that law-abiding citizens would instantly become felons under this rule. This final rule provides specific information about acceptable methods of disposal, as well as the timeframe under which disposal must be accomplished to avoid violating 18 U.S.C. 922(o). Current possessors of bump-stock-type devices who properly destroy or abandon their devices will avoid criminal liability. As described in Part IV.D.1.b, this is not a compensable "taking" of property under the Constitution.

6. Other Priorities and Efficiencies

Comments Received

Hundreds of commenters who oppose the rule suggested that the focus should not be on any new gun regulation but rather on an array of other issues, including addressing mental health, drug addiction, education, civility, and the decline of parenting and morals. Many argued that more resources should be devoted to treating the mentally ill or to the opioid epidemic, including ensuring that law enforcement and mental health agencies have the power to incarcerate and institutionalize people who are a danger to themselves or others. Several others suggested that resources should be devoted to securing public spaces, observing

that the U.S. Capitol and all Federal buildings have armed security but many schools and workplaces do not. Numerous commenters noted that other improvements are needed before any new gun restriction is pursued, such as improving records in the National Instant Criminal Background Check System (NICS), properly charging persons with crimes that would bar them from owning firearms, or addressing bullying and teaching morals and the Bible in schools. One commenter suggested the Government investigate the social changes that are turning men into killers, while another said that to make a difference, one needs to go after the videogame industry and Hollywood movies that glorify carnage, body counts, murder, and violence. Commenters argued that only once these issues are tackled can discussion of new gun regulations begin.

Department Response

The Department acknowledges comments regarding treatment of mental health and drug addiction, securing schools and workplaces, improving records in the NICS system, and various social issues. The Department agrees that these are important issues, but they are outside the scope of this rulemaking. Several of these matters were raised as alternatives for the Department to consider. See Part IV.F for further discussion of alternatives.

7. Enforcement and Compliance

Comments Received

Some commenters questioned how ATF will enforce this regulation, and a few stated that they or people they know of will not comply with this rule should it go into effect. Several questioned whether the agency would send armed agents to visit homes and confiscate bump-stock-type devices, while others pointed out that because bump-stock-type devices have not been tracked in any way, confiscation will depend on volunteers. Commenters highlighted the lack of success that certain States, such as Massachusetts, have had in collecting bump-stock-type devices after passing laws restricting their possession. Many commenters suggested it would be a waste of ATF employees' time and public funds for ATF to implement the rule. Several others remarked that confiscation or enforcement would be easily circumvented because new technology like 3D printing and CNC (Computer Numeric Control) equipment (computerized milling machines), or even traditional manufacturing methods, will facilitate a black market in homemade bump-stock-type devices. One commenter submitted to ATF "a fully functional" bump-stock equivalent that was created "using super glue, 2-part epoxy, an AR-15 A2 pistol grip, threaded steel rods, and small ABS plastic bricks [i.e., Legos]."

Department Response

The Department acknowledges comments on enforcement of and compliance with the rule. As stated in the NPRM, current possessors of bump-stock-type devices will be obligated to dispose of these devices. Acceptable methods of destruction include completely melting, shredding, or crushing the device. If the device is made of metal, an alternative acceptable method of destruction is using an oxy/acetylene torch to make three angled cuts that completely severs design features critical to the functionality of the bump-stock-type device. Each cut should remove at least ¼ inch of metal per cut. Any method of destruction must render the device so that it is not readily restorable to a firing condition or is otherwise reduced to scrap. However, as the majority of bump-stock-type devices are made of plastic material, individuals may use a hammer to break them apart so that the device is not readily restorable to a firing condition or is otherwise reduced to scrap, and throw the pieces away.

Current possessors are encouraged to undertake destruction of the devices. However, current possessors also have the option to abandon bump-stock-type devices at the nearest ATF office.

Current possessors of bump-stock-type devices will have until the effective date of the rule (90 days from the date of publication in the Federal Register) to comply. Additional information on the destruction of bump-stock-type devices will be available at www.atf.gov.

8. Lack of Consistency

Comments Received

Hundreds of commenters indicated that ATF's reversal of position from its earlier determinations and insistence that a bump-stock-type device now qualifies as a machinegun under the NFA "hurts [the agency's] credibility." As one commenter remarked, the perpetual state of inconsistencies, whereby products are approved and then later ruled to be illegal by ATF, "creates an air of fear and distrust in the gunowning public," and moreover, "calls into question the validity and competence of the very agency charged with making these determinations." Several commenters argued that ATF's lack of consistency only serves to increase distrust of the agency, the Government, and the legal process.

Department Response

The Department acknowledges comments regarding the inconsistency in ATF's previous classifications of some bump-stock-type devices as machineguns and others as non-machineguns. As described in Part III, upon review, ATF recognized that the decisions issued between 2008 and 2017 did not provide consistent or extensive legal analysis regarding the term "automatically" as that term applies to bump-stock-type devices. Consistent with its authority to reconsider and rectify its past classifications, the Department accordingly clarifies that the definition of "machinegun" in the NFA and GCA includes bump-stock-type devices because they convert an otherwise semiautomatic firearm into a machinegun by functioning as a self-acting or self-regulating mechanism that harnesses the recoil energy of the semiautomatic firearm in a manner that allows the trigger to reset and continue firing without additional physical manipulation of the trigger by the shooter. The Supreme Court has made clear that this sort of regulatory correction is permissible. An agency *66531 may change its course as long as it "suppl[ies] a reasoned analysis for the change," which the Department has done at length in the NPRM and this final rule. Motor Vehicle Mfrs. Ass'n v. State Farm Mut. Auto. Ins. Co., 463 U.S. 29, 42 (1983). And the agency bears no heightened burden in prescribing regulations that displace inconsistent previous regulatory actions. FCC v. Fox Television Stations, Inc., 556 U.S. 502, 514-15 (2009).

9. Earlier Determinations Correct

Comments Received

Over 1,500 commenters opposed to the rule maintained that ATF's earlier classifications determining certain bump-stock-type devices not to be subject to the NFA or GCA were correct and should not be reversed. These commenters stated that reversing this position is unnecessary and unlawful. To make the point that ATF is bound by its prior determinations, many commenters submitted ATF's own classification letters and highlighted the Department's arguments made in litigation as evidence that the rule on bump-stock-type devices is an arbitrary decision. In particular, commenters cited the Department's arguments made in litigation with Freedom Ordnance Manufacturing, Inc. ("Freedom Ordnance"), No. 3:16-cv-243 (S.D. Ind. filed Dec. 13, 2016). There, the Department defended its decision to classify Freedom Ordnance's Electronic Reset Assistant Device (ERAD) as a machinegun. In responding to Freedom Ordnance's argument that the ERAD was a bump-stock-type device and not subject to regulation, the Department stated such stocks were not machineguns because "[b]ump firing requires the shooter to manually and simultaneously pull and push the firearm in order for it to continue firing." Brief for ATF in Support of Motion for Summary Judgment and in Opposition to Plaintiff's Motion for Summary Judgment, ECF No. 28, at 21 (July 27, 2017). These prior decisions and admissions, commenters argued, preclude the Department from suddenly reversing its decision.

Department Response

The Department acknowledges that ATF previously determined that certain bump-stock-type devices were not "machineguns" under the law. The Department notes, however, that a great deal of its analysis in the Freedom Ordnance litigation was fully consistent with its position in this rule. For example, the Department adhered to its view that a single pull is a "single function" of the trigger, see id. at 13-14, and it argued that a device that relieves the shooter from having to "pull and release the trigger for each individual, subsequent shot" converts the firearm into a machinegun, id. at 22. While the Department accepted the previous classification of some bump-stock-type devices as non-machineguns, it relied on the mistaken premise that the need for "shooter input" (i.e., maintenance of pressure) for firing with bump-stock-type devices means that such devices do not

enable "automatic" firing, see id. at 21—even though Freedom Ordnance's ERAD also required maintenance of pressure by the shooter, see id. at 20.

In any event, as explained in the NPRM, the Department believes that ATF clearly has authority to "reconsider and rectify" its classification errors. Akins, 312 F. App'x at 200; see also Fox, 556 U.S. at 514-15; Hollis v. Lynch, 121 F. Supp. 3d 617, 642 (N.D. Tex. 2015) (no due process violation in ATF's revocation of mistaken approval to manufacture a machinegun). In the NPRM, the Department noted that "ATF has reviewed its original classification determinations for bump-stock-type devices from 2008 to 2017 in light of its interpretation of the relevant statutory language, namely the definition of 'machinegun.' "83 FR at 13446. The NPRM explained that "ATF's classifications of bump-stock-type devices between 2008 and 2017 did not include extensive legal analysis of these terms in concluding that the bump-stock-type devices at issue were not 'machineguns.' "Id. Specifically, some of these rulings concluded that such devices were not machineguns because they did not "initiate [] an automatic firing cycle that continues until either the finger is released or the ammunition supply is exhausted,' "but did not provide a definition or explanation of the term "automatically." Id. at 13445. This is precisely the purpose of this rule. As explained in more detail in Part III, the Department has determined that bump-stock-type devices enable a shooter to initiate an automatic firing sequence with a single pull of the trigger, making the devices machineguns under the NFA and GCA. Consistent with the APA, this rule is the appropriate means for ATF to set forth its analysis for its changed assessment. See Motor Vehicle Mfrs. Ass'n v. State Farm Mut. Auto Ins. Co., 463 U.S. 29, 57 (1983).

10. Bump Firing and Bump-Stock-Type Device Operation

a. Bump-Stock-Type Device Operation

Comments Received

More than 17,000 commenters argued that ATF cannot proceed because its description of how bump-stock-type devices operate is inaccurate and that the proposed rule is based on a false premise. Commenters emphatically argued that bump-stock-type devices do not make a semiautomatic firearm shoot automatically by a single function of the trigger. They stated: (1) No part of the bump-stock-type device touches the trigger itself, but rather touches only the shooter's trigger finger, and (2) if bump-stock-type devices made semiautomatic rifles fully automatic, then holding the gun with only the trigger finger hand while depressing the trigger should cause the gun to repeatedly fire, which does not happen when a rifle is affixed with a bump-stock-type device. One commenter said that should ATF be asked to demonstrate the firing of a rifle equipped with a bump-stock-type device with the shooter only using his trigger hand, and no coordinated input from the other hand, it could not be done, as it requires two hands, skill, and coordination. Similarly, another commenter asserted that while various manual bump-firing techniques "vary in difficulty and are arguably more difficult to master than the use of a bump-stock-type device, the fact is that they use exactly the same principle as a bump-stock-type device without the use of such a device, and thus the device itself cannot be the 'primary impetus for a firing sequence' as described."

Several commenters raised specific objections to ATF's description in the NPRM that a bump-stock-type device "harnesses the recoil energy [of a firearm] to slide the firearm back and forth so that the trigger automatically re-engages by 'bumping' the shooter's stationary trigger finger without additional physical manipulation of the trigger by the shooter" and that the device is "a self-acting and self-regulating force that channels the firearm's recoil energy in a continuous back-and-forth cycle that allows the shooter to attain continuous firing after a single pull of the trigger so long as the trigger finger remains stationary on the device's extension ledge (as designed)." 83 FR at 13443. These commenters disputed these descriptions, stating that a bump-stock-type device does not harness any recoil energy and there is nothing that makes it an energy sink (such as a spring) that stores recoil *66532 energy to move the firearm forward. Further, they argued that further physical manipulation is required to operate a firearm equipped with a bump-stock-type device—specifically, the shooter must physically manipulate the trigger after every shot fired by pushing the firearm forward to re-engage the trigger.

The bump-stock firing sequence is not automatic, commenters argued, because trigger reset is not caused by a mechanical device, part, or combination of parts associated with pulling the trigger. Reset occurs, they said, only if continuous forward

motion and pressure is applied by the non-trigger hand or arm of the shooter, not the device. As described by some commenters, "[t]he trigger of a semiautomatic firearm in a bump-stock type device is being repeatedly actuated, functioned, pulled (take your pick) by the non trigger hand of the shooter pushing the firearm forward. That actuation, function, [or] pull can and often does occur entirely independent of recoil. Recoil is incidental to the firing sequence of a bump-stock type device equipped semiautomatic firearm, not intrinsic." In challenging ATF's proposed rule and description of how these devices operate, one commenter asked ATF to provide the history of the machinegun and semiautomatic firearms, along with a discussion of the differences between the mechanical and legal definitions.

In sum, commenters argued that because ATF's premise of how bump-stock-type devices operate is inaccurate, there is no basis for ATF to regulate them as machineguns.

Department Response

The Department disagrees that ATF's description of how bump-stock-type devices operate is inaccurate. ATF explained that bump-stock-type devices "are generally designed to operate with the shooter shouldering the stock of the device (in essentially the same manner a shooter would use an unmodified semiautomatic shoulder stock), maintaining constant forward pressure with the non-trigger hand on the barrel-shroud or fore-grip of the rifle, and maintaining the trigger finger on the device's extension ledge with constant rearward pressure." 83 FR at 13443. The Department believes that this accurately describes the operation of these devices. Further, ATF explained that bump-stock-type devices "are designed to allow the shooter to maintain a continuous firing cycle after a single pull of the trigger by directing the recoil energy of the discharged rounds into the space created by the sliding stock (approximately 1.5 inches) in constrained linear rearward and forward paths." Id. This is a distinctive feature of bump-stock-type devices and enables the unique functioning and operation of these devices. The bump-stock-type device captures and harnesses the firearm's recoil to maintain a continuous firing sequence, and thus is properly described as "a selfacting or self-regulating mechanism." The very purpose of a bump-stock-type device is to eliminate the need for the shooter to manually capture, harness, or otherwise utilize this energy to fire additional rounds, as one would have to do to "bump fire" without a bump-stock-type device. Further, this mechanism "allows the firing of multiple rounds through a single function of the trigger" because, as explained in the NPRM, ATF's interpretation that the phrase "single function of the trigger" includes a "single pull of the trigger" "is consonant with the statute and its legislative history." Akins v. United States, 312 F. App'x 197, 200 (11th Cir. 2009) (per curiam).

The Department agrees with the commenters that "[n]o part of the bump stock touches the trigger, only the shooter[']s trigger finger." However, this is neither legally nor technically determinative. The fact that a bump-stock-type device does not touch the trigger does not mean that the device has not acted automatically (by directing and utilizing recoil energy) or that anything other than a single pull of the trigger occurred. That is, the bump-stock-type device remains "a self-acting or self-regulating mechanism" for the reasons described in this section. The fact that bump-stock-type devices do not touch the trigger does not mean that they do not qualify as machineguns within the meaning of the NFA and GCA. ATF has provided a thorough explanation of their functioning, showing that a semiautomatic firearm utilizing a bump-stock-type device "shoots automatically more than one shot, without manual reloading, by a single function of the trigger." 26 U.S.C. 5845(b).

Additionally, the Department disagrees that to be classified as a "machinegun" under the NFA, a firearm must fire "repeatedly" when a shooter holds and fires the gun with only the trigger-finger hand. Any such argument misconstrues the meaning of "automatically." As explained above, bump-stock-type devices operate automatically because their design eliminates the requirement that a shooter manually capture and direct recoil energy to fire additional rounds. In this way, semiautomatic firearms shoot "automatically" when equipped with bump-stock-type devices in that their recoil energy is channeled through these "self-acting or self-regulating mechanisms." The commenters' positions reflect previous analysis that ATF is now correcting. ATF explained above that "[p]rior ATF rulings concerning bump-stock-type devices have not provided substantial legal analysis regarding the meaning of the term 'automatically' as it is used in the GCA and NFA." 83 FR at 13445.

The Department disagrees that a shooter repeatedly actuates, functions, or pulls the trigger of a semiautomatic firearm using a bump-stock-type device with the non-trigger hand by "pushing the firearm forward." In fact, the shooter "pulls" the trigger

once and allows the firearm and attached bump-stock-type device to operate until the shooter releases the trigger finger or the constant forward pressure with the non-trigger hand. The non-trigger hand never comes in contact with the trigger and does not actuate, function, or pull it. By maintaining constant forward pressure, a shooter relies on the device to capture and direct recoil energy for each subsequent round and requires no further manipulation of the trigger itself.

In this way, the Department also disagrees that "[r]ecoil is incidental to the firing sequence of a bump-stock type device equipped semiautomatic firearm, not intrinsic." Without recoil and the capture and directing of that recoil energy, a bump-stock-type device would be no different from a traditional shoulder stock. As numerous commenters acknowledged, bump-stock-type devices allow shooters to fire semiautomatic firearms at a faster rate and in a different manner than they could with traditional shoulder stocks. Bump-stock-type devices do this by capturing and directing recoil mechanically, enabling continuous fire without repeated manual manipulation of the trigger by a shooter.

b. Bump-Stock-Type Device Firing Technique

Comments Received

Thousands of commenters objected to the proposed rule on grounds that bump-stock-type devices are novelty items that assist with bump firing, which is a technique that any shooter can perform with training or with everyday items such as a rubber band or belt loop. Many commenters stated that all semiautomatic firearms can be bump fired by a shooter simply holding the trigger finger stationary and pushing the weapon forward until the trigger is depressed against it to the point of *66533 firing, and that use of bump-stock-type devices makes using the bump-fire shooting technique safer for the shooter and those around the shooter. Some commenters also gave examples of extremely skilled and fast shooters who do not need any assistive device or item to fire a semiautomatic firearm at a rapid rate. Commenters therefore argued that if the Department proceeds to prohibit possession of bump-stock-type devices they must also ban rubber bands, belt loops, string, or even people's fingers.

Department Response

The Department disagrees with commenters' assessments and believes that bump-stock-type devices are objectively different from items such as belt loops that are designed for a different primary purpose but can serve an incidental function of assisting with bump firing. To bump fire a firearm using a belt loop or a similar method without a bump-stock-type device, a shooter must put his thumb against the trigger and loop that thumb through a belt loop. With the non-trigger hand, the shooter then pushes the firearm forward until the thumb engages the trigger and the firearm fires. The recoil pushes the firearm backwards as the shooter controls the distance of the recoil, and the trigger resets. The constant forward pressure with the non-trigger hand pushes the firearm forward, again pulling the firearm forward, engaging the trigger, and firing a second round.

This rule defines the term "automatically" to mean "functioning as the result of a self-acting or self-regulating mechanism." Bump-stock-type devices enable semiautomatic firearms to operate "automatically" because they serve as a self-acting or self-regulating mechanism. An item like a belt loop is not a "self-acting or self-regulating mechanism." When such items are used for bump firing, no device is present to capture and direct the recoil energy; rather, the shooter must do so. Conversely, bump-stock-type devices are specifically designed to capture the recoil energy, a force that initiates a firing sequence that ultimately produces more than one shot. That firing sequence is "automatic" because the device harnesses the firearm's recoil energy as part of a continuous back-and-forth cycle that allows the shooter to attain continuous firing after a single pull of the trigger.

Bump firing utilizing a belt loop or similar method of maintaining tension on the firearm is thus more difficult than using a bump-stock-type device. In fact, the belt-loop method provides a stabilizing point for the trigger finger but relies on the shooter—not a device—to harness the recoil energy so that the trigger automatically re-engages by "bumping" the shooter's stationary trigger finger. Unlike a bump-stock-type device, the belt loop or a similar manual method requires the shooter to control the distance that the firearm recoils and the movement along the plane on which the firearm recoils.

ATF's previous bump-stock-type device classifications determined that these devices enable continuous firing by a single function of the trigger. Other firing techniques may do the same because they rely on a single "pull." However, as ATF has made clear, a determining factor is whether the device operates or functions automatically. The proposed and final rules make clear that if a device incorporates a self-acting or self-regulating component for the firing cycle, the firearm equipped with the device operates automatically. Again, this differs from traditional semiautomatic firearms because the trigger must be repeatedly manipulated by the shooter to fire additional rounds, whereas a bump-stock-type device allows for a single pull, and the self-acting or self-regulating device automatically re-engages the trigger finger.

Further, while skilled shooters may be able to fire more rapidly than a shooter employing a bump-stock-type device on a semiautomatic firearm, they do so by pulling and releasing the trigger for each shot fired. This is a fundamental distinction between skilled shooters and those employing bump-stock-type devices. Bump-stock-type devices require that a shooter pull the trigger to fire the first round and merely maintain the requisite pressure to fire subsequent rounds. This is the purpose of a bump-stock-type device—to make rapid firing easier without the need to pull and release the trigger repeatedly. This shows that skilled shooters would be unaffected by the proposed rule and counters commenters' arguments that the rule is "arbitrary and capricious" on these grounds.

11. Proposed Definitions

a. Vagueness-Rate of Fire

Comments Received

Many commenters focused on the increased rate of fire associated with bump-stock-type devices and objected to the proposed regulation being "based, at least in part, on the idea that bump stocks are machineguns because they 'allow[] "rapid fire" of the semiautomatic firearm,' 'increase the rate of fire of semiautomatic firearms,' and 'mimic automatic fire'" (quoting 83 FR at 13443-44). Commenters objected to classifying bump-stock-type devices as machineguns because "a high rate of fire alone does not transform a semi-automatic into an automatic weapon under the NFA."

Additionally, other commenters objected to classifying other "rate-increasing devices" as machineguns because doing so would require a standard rate of fire to be defined, which some said is impossible, or would capture certain semiautomatic firearms and firearms accessories. A few commenters pointed out that "[t]rue machine guns do not require freedom to oscillate fore and aft to increase their rate of fire. The rate of fire of a machine gun is intrinsic to the weapon and completely independent of the shooter's manual dexterity, the firing position, the number of hands holding the firearm, and any degree of freedom of motion. . . . Bump stocks do not increase the rate of fire when the semiautomatic firearm is operated with only one hand—even when shouldered. The human element is indispensable to any firing rate increase achieved with a bump stock."

Department Response

The Department has neither proposed the rate of fire as a factor in classifying machineguns, nor utilized this as the applicable standard in the proposed rule. The Department disagrees with any assertion that the rule is based upon the increased rate of fire. While bump-stock-type devices are intended to increase the rate at which a shooter may fire a semiautomatic firearm, this rule classifies these devices based upon the functioning of these devices under the statutory definition. The Department believes that bump-stock-type devices satisfy the statutory definition of "machinegun" because bump-stock-type devices utilize the recoil energy of the firearm to create an automatic firing sequence with a single pull of the trigger. The rate of fire is not relevant to this determination.

The Department also agrees with commenters that the standard rate of fire of a semiautomatic firearm or machinegun is a characteristic that is not dependent upon the individual shooter. Any reference to the "increased" rate of fire attributable to bump-stock-type devices refers only to the increased rate of fire that a particular shooter may achieve. Further, the Department agrees that there is no rate of fire that can identify or differentiate a machinegun from a semiautomatic firearm. This is because

the statutory definition alone determines whether a firearm is a *66534 machinegun. The Department believes that the final rule makes clear that a bump-stock-device will be classified as a machinegun based only upon whether the device satisfies the statutory definition.

b. Vagueness—Impact on Semiautomatic Firearms and Other Firearm Accessories

Comments Received

More than 56,000 commenters, including those submitting through the three main form letters opposing the rule and the NAGR submission, indicated that the proposed rule would set a dangerous precedent because a future "anti-gun Administration" will use it to confiscate millions of legally owned semiautomatic firearms as well as firearm components and accessories.

Commenters opposed to the rule broadly argued that by classifying bump-stock-type devices as machineguns, AR-15s and other semiautomatic firearms also may be classified as machineguns. In particular, commenters stated that under the GCA, rifles and shotguns are defined using a "single pull of the trigger" standard, in contrast to machineguns, which are defined by a "single function of the trigger" standard under the NFA. Commenters argued that by defining "single function of the trigger" to mean "single pull of the trigger," the rule will bring all semiautomatic rifles and shotguns currently regulated under the GCA under the purview of the NFA. Commenters also argued that the proposed regulatory text encompasses a number of commercially available items, such as Gatling guns, competition triggers, binary triggers, Hellfire trigger mechanisms, or even drop-in replacement triggers. One commenter pointed out that the language "firing without additional physical manipulation of the trigger by shooter" would apply, for instance, to Model 37 pump shotguns made by Ithaca.

Several commenters said that the proposed rule should be more narrowly tailored so that it applies to bump-stock-type devices only. For instance, one commenter proposed that the following be added to the definition of bump-stock-type device: "A single accessory capable of performing the roles of both a pistol grip and a shoulder stock." Another commenter suggested that, at most, one sentence could be added at the end of the definition of "machinegun":

For purposes of this definition, the term "automatically" as it modifies "shoots, is designed to shoot, or can be readily restored to shoot," means a device that—(1) attaches to a semiautomatic rifle (as defined in section 921(a)(28) of title 18, United States Code); (2) is designed and intended to repeatedly activate the trigger without the deliberate and volitional act of the user pulling the trigger each time the firearm is fired; and (3) functions by continuous forward pressure applied to the rifle's fore end in conjunction with a linear forward and backward sliding motion of the mechanism utilizing the recoil energy when the rifle is discharged.

One commenter suggested that, instead of trying to define a bump-stock-type device, it would be better to issue a rule stating that one cannot modify or replace the current style of stock with one that contains other features, with exceptions for adjusting the length of the stock or having a cheek rest.

Department Response

The Department disagrees that other firearms or devices, such as rifles, shotguns, and binary triggers, will be reclassified as machineguns under this rule. Although rifles and shotguns are defined using the term "single pull of the trigger," 18 U.S.C. 921(a)(5), (7), the statutory definition of "machinegun" also requires that the firearm "shoots automatically more than one shot, without manual reloading," by a single function of the trigger, 26 U.S.C. 5845(b). While semiautomatic firearms may shoot one round when the trigger is pulled, the shooter must release the trigger before another round is fired. Even if this release results in a second shot being fired, it is as the result of a separate function of the trigger. This is also the reason that binary triggers cannot be classified as "machineguns" under the rule—one function of the trigger results in the firing of only one round. By contrast, a bump-stock-type device utilizes the recoil energy of the firearm itself to create an automatic firing sequence with a single pull of the trigger. The Department notes that ATF has already described a "single pull of the trigger" as a "single function of the trigger." See ATF Ruling 2006-2.

Further, while the phrase "firing without additional physical manipulation of the trigger by the shooter" would apply to firearms like the Model 37 pump shotguns made by Ithaca, that firearm could not be classified as a machinegun under the rule. The Model 37 permits a shooter to pull the trigger, hold it back, and pump the fore-end. The pump-action ejects the spent shell and loads a new shell that fires as soon as it is loaded. While this operates by a single function of the trigger, it does not shoot "automatically," and certainly does not shoot "without manual reloading." 26 U.S.C. 5845(b). In fact, the pump-action design requires that the shooter take action to manually load the firearm for each shot fired.

The Department disagrees that "automatically" should be defined using the more extensive definition quoted above. Whereas analysis as to what constitutes a "single function of the trigger" is separate from whether a firearm shoots automatically, the commenter's proposed definition merges the two issues. The Department believes that this may lead to confusion, further complicate the issue, and result in further questions that require clarification.

c. Concerns Raised by Equating "Function" and "Pull"

Comments Received

One commenter said drafters of the NFA chose the term "function" intentionally and that by proposing to equate "function" with "pull," a whole new fully automatic non-machinegun market will be opened because "fire initiated by voice command, electronic switch, swipe on a touchscreen or pad, or any conceivable number of interfaces [does] not requir[e] a pull." The commenter suggested that "single function of a trigger" be defined to include but not be limited to a pull, as that would include bump-stock-type devices without opening a "can of worms."

Department Response

The proposed addition to the regulatory definition of machinegun includes this statement: "For purposes of this definition, the term 'single function of the trigger' means a 'single pull of the trigger." The Department believes that the commenter is correct—this proposed definition may lead to confusion. The proposed definition suggests that only a single pull of the trigger will qualify as a single function. However, it is clear that a push or other method of initiating the firing cycle must also be considered a "single function of the trigger." Machineguns such as the M134 Minigun utilize a button or an electric switch as the trigger. See 83 FR at 13447 n.8 (explaining that other methods of trigger activation are analogous to pulling a trigger).

Therefore, the Department concurs with the commenters and has modified the proposed definition so that in this final rule the regulatory text will state that "single function of the trigger" means a "single pull of the trigger" and analogous motions rather than a "single pull of the trigger." Although the case law establishes that a "single pull" is a *66535 "single function," those cases were addressing devices that relied on a single pull of the trigger, as opposed to some other single motion to activate the trigger. The term "single function" is reasonably interpreted to also include other analogous methods of trigger activation.

E. ATF Suggested Alternatives

1. General Adequacy of ATF Alternatives

Comments Received

One commenter opposed to the rule suggested that the alternatives discussed in the NPRM were not in compliance with Office of Management and Budget (OMB) Circular A-4 guidance, and that ATF failed to consider available alternatives and the impact on innovation. In addition, the commenter stated that ATF failed to show a need for the rule and argued that ATF did not make a good-faith attempt to meet its statutory mandate to identify, analyze, and rule out feasible alternatives. One commenter suggested that the analysis of alternatives should include alternatives provided under OMB Circular A-4, which include tort liability, criminal statutes, and punishments for violating statutes.

Department Response

OMB Circular A-4 requires the consideration of "possible alternatives" to regulation. [FN8] ATF considered possible alternatives that it could legally employ under the NFA, as many of the suggested alternatives from commenters—e.g., grandfathering and reimbursement policies—are not possible given the legal constraints of existing ATF authority. OMB Circular A-4 stipulates, "The number and choice of alternatives selected for detailed analysis is a matter of judgment. There must be some balance between thoroughness and the practical limits on [the agency's] analytical capacity." [FN9] Circular A-4 adds that "analyzing all possible combinations is not practical when there are many options (including possible interaction effects)." [FN10] In these cases, the agency is to use its judgment to choose reasonable alternatives for careful consideration. During formulation of the NPRM, ATF considered various alternatives, including examples provided under OMB Circular A-4, and deemed them inappropriate. ATF believes that bump-stock-type devices satisfy the definition of "machinegun" under the NFA, so regulatory action is necessary to implement the NFA and GCA.

- OMB Circular A-4, Regulatory Analysis, at 2 (Sept. 17, 2003), https://www.whitehouse.gov/sites/whitehouse.gov/files/omb/circulars/A4/a-4.pdf.
- 9 Id. at 7.
- 10 Id. at 11.

2. First ATF Alternative—No Regulatory Action

Comments Received

Commenters opposed to the regulation implicitly agreed with the first alternative listed by ATF, which is for the Department not to take any action. They argued that attention should be devoted to improving the background check system, that ATF should concentrate on enforcing the existing gun laws, or that if there is to be change, that change should be made by Congress or the States. One commenter argued ATF failed to properly analyze this alternative.

Department Response

As explained above, Part IV.D.4, the Department has concluded that the NFA and GCA require regulation of bump-stock-type devices as machineguns, and that taking no regulatory action is therefore not a viable alternative to this rule.

3. Second ATF Alternative—Shooting Ranges

Comments Received

Commenters who suggested that bump-stock-type devices be used in a controlled setting, or be available only at shooting ranges, were largely in support of the rule rather than viewing it as a complete alternative to taking no regulatory action.

Department Response

The Department acknowledges comments on the potential use of bump-stock-type devices in a controlled setting, such as a shooting range. As stated above, the Department believes that such items satisfy the statutory definition of "machinegun," and therefore it is promulgating this rule to clarify the definition. ATF has previously held that the on-premises rental of NFA firearms is permitted. However, whereas machineguns that are currently available for rental at shooting ranges are lawfully registered in the NFRTR if they may be lawfully possessed under 18 U.S.C. 922(o)(2)(B), bump-stock-type devices cannot be registered because none were in existence when section 922(o) was enacted in 1986.

4. Third ATF Alternative—Use Other Means

Comments Received

Many commenters opposed to the rulemaking pointed out that bump firing can be accomplished by using other everyday items such as belt loops or rubber bands. See Part IV.10.b. No commenter said that solely using rubber bands or other items would be a satisfactory alternative if the proposed rule went into effect. Rather, these commenters made the point that if bump firing is possible with or without bump-stock-type devices, then the Department would be obliged to also prohibit possession of rubber bands and belt loops under the NFA.

Department Response

The Department has detailed in the NPRM and this rule the distinction between bump firing with a bump-stock-type device and using belt loops or rubber bands. See Part IV.10.b. Although a shooter using a belt loop, string, or other manual method utilizes recoil energy to bump fire, the shooter is responsible for constraining the firearm, maintaining the correct finger pressure, and regulating the force necessary to fire continuously. This is clearly distinguishable from a bump-stock-type device, as ATF has explained that such a device functions "as a self-acting and self-regulating force that channels the firearm's recoil energy in a continuous back-and-forth cycle that allows the shooter to attain continuous firing after a single pull of the trigger so long as the trigger finger remains stationary on the device's extension ledge." 83 FR at 13443. Based on the clear differences between bump-stock-type devices and manual means of bump firing, the Department disagrees with the commenters that manual means of bump firing are factually or technically equivalent to bump-stock-type devices.

F. Other Alternatives

1. Allow Registration or Grandfathering of Bump-Stock-Type Devices Under NFA

Comments Received

Several hundred commenters argued that ATF should announce an amnesty period, allowing time for current owners of bump-stock-type devices to register them as NFA firearms in the NFRTR. These commenters argued that pursuant to section 207(d) of the GCA, the Attorney General has power to establish amnesty periods for up to 90 days. Further, they argued there is precedent for an amnesty period, pointing to the seven-year amnesty/registration period that was allowed for the Striker-12/ Streetsweeper and USAS-12 shotguns. See ATF Rulings 94-1, 94-2. Doing so, they argued, would save the Government from having to compensate *66536 current owners of bump-stock-type devices and also even generate money for the Government, as individuals would be required to pay a \$200 tax on the devices. See 26 U.S.C. 5821.

Department Response

The Department disagrees that an amnesty period is possible in this scenario. While in 1968 Congress left open the possibility of future amnesty registration of firearms subject to the NFA, ATF has long held that it eliminated any possible amnesty for machineguns in 1986. Following passage of 18 U.S.C. 922(o), ATF advised the industry and the public that amnesty registration of machineguns was not legally permissible. For example, in 1996 and 1997, ATF advised an industry member that:

18 U.S.C. 922(o) would preclude the registration of machineguns during an amnesty period. Section 922(o) prohibits possession of machineguns which were not lawfully possessed prior to its effective date of May 19, 1986 Since 922(o) [was enacted after the amnesty provision of the NFA], its provisions would prevail over any earlier enactment in conflict. This means that any future amnesty period could not permit the lawful possession and registration of machineguns prohibited by section 922(o).

Letter for C. Michael Shyne from ATF's National Firearms Act Branch Chief (March 10, 1997). Section 922(o) does not ban the private possession and transfer of all machineguns because it specifically excludes "any lawful transfer or lawful possession of a machinegun that was lawfully possessed before the date [section 922(o)] takes effect." 18 U.S.C. 922(o)(2)(B). The intent of the statute was to limit transactions in post-1986 machineguns. See United States v. Ferguson, 788 F. Supp. 580, 581 (D.D.C.

1992) ("Under section 922(o)(2)(B), certain machineguns, namely, those that were lawfully possessed before enactment of the statute in 1986, may be legally possessed and transferred even today."); see also United States v. O'Mara, 827 F. Supp. 1468, 1470 n.4 (C.D. Cal. 1993) (citing Ferguson). Congress's goal was to ban the transfer and possession of such weapons outright. United States v. Hunter, 843 F. Supp. 235, 247-48 (E.D. Mich. 1994). The legislative history supports this proposition. When asked whether an amnesty period could "be administratively declared by the Secretary of the Treasury by the enactment of this bill," Senator Kennedy responded that "[t]here is nothing in the bill that gives such an authority, and there is clearly no valid law enforcement goal to be achieved by such open-ended amnesty." See id. at 248.

Some commenters pointed to ATF Rulings 94-1 and 94-2 as precedent for an amnesty period; however, section 922(o) applies only to machineguns, and there was no similar restriction on the destructive devices at issue in ATF Rulings 94-1 and 94-2. Therefore, these rulings cannot serve as precedent in the present case.

2. Licensing and Background Checks

Comments Received

Numerous commenters suggested other methods for how bump-stock-type devices should be regulated, including methods involving background checks. Some commenters broadly suggested that these devices should be sold like firearms under the GCA, meaning that the purchaser would undergo a background check when acquiring one from a retailer. One commenter suggested a new "2.5 firearms class" that would cover "grey area" guns and accessories, like bump-stock-type devices. Possessors of items falling under the "2.5 firearms class" would undergo background checks and, as with State-issued concealed-carry permits, local law enforcement would be able to cancel privileges if necessary. Other commenters suggested that bump-stock-type devices should not be available to the public unless the possessor is licensed, passes a background check, or provides a valid reason for needing a bump-stock-type device. Another commenter suggested bump-stock-type devices should be regulated like "any other weapon" under the NFA, 26 U.S.C. 5845(e), so that current owners could register them by paying a \$5 fee, allowing a waiting period to elapse, and establishing a paper trail of ownership.

Department Response

The Department acknowledges these suggested alternatives but does not have the authority to add a new class of firearms to the statutory scheme or impose licensing requirements to acquire a firearm. Such changes would require legislation. Further, the definition of "any other weapon" in the NFA does not apply to bump-stock-type devices. Because bump-stock-type devices are properly classified as "machineguns" under the NFA and GCA, the Department believes that ATF must regulate them as such, and that the recommended alternatives are not possible unless Congress amends the NFA and GCA.

3. Remuneration

Comments Received

Over 1,000 commenters opposed to the rule argued that compensation should be provided to owners of bump-stock-type devices. Several supporters of the rule also suggested there should be a buy-back program in order to reduce the number of bump-stock-type devices. One commenter more specifically stated that manufacturers or retailers should be required to buy back all such devices and make full refunds to all purchasers. Another supporter suggested a one-time tax credit to owners who surrender their bump-stock-type devices or provide proof of destruction.

Department Response

The Department acknowledges comments on compensation for current owners of bump-stock-type devices. While ATF has the authority to implement the NFA and GCA, the Department does not have the necessary Federal appropriations to implement a buy-back program or offer monetary compensation. To implement a buy-back program or provide a tax credit would require congressional action.

4. Medical Exemption

Comments Received

Some commenters suggested that Department amend the proposed rule so it would provide an exemption for "medical necessity," thereby allowing certain individuals, such as those with nerve damage or one functional arm, to possess bump-stock-type devices. Similarly, commenters suggested bump-stock-type devices should only be available for people who are physically unable to pull a trigger for hunting or target practice.

Department Response

The Department does not have authority to create a medical exemption for the possession of machineguns. Pursuant to the NFA and GCA, for private possession of machineguns to be lawful, they must have been lawfully possessed before the effective date of 18 U.S.C. 922(o).

5. Allow Removal of Trigger Ledge

Comments Received

One commenter suggested that "ATF could find that bump-stock-type devices with the ledge/rest removed are not affected by any additional regulation." The commenter argued that this would make the proposed rule "logically consistent with the notion that operators may 'bump fire' with or without a *66537 bump-stock-type device, as long as they do not utilize a device allowing a fixed trigger finger."

Department Response

The Department does not believe that removing the trigger ledge is sufficient to affect a bump-stock-type device's classification as a machinegun. While the trigger ledge makes it easier to utilize the device, removing the ledge does nothing to prevent the directing of the "recoil energy of the discharged rounds into the space created by the sliding stock (approximately 1.5 inches) in constrained linear rearward and forward paths." 83 FR at 13443. Therefore, even without the trigger ledge, the bump-stock-type device will operate as designed if the shooter simply holds his or her finger in place. As such the bump-stock-type device remains a "machinegun" under the NFA and GCA.

6. Miscellaneous Alternatives To Regulate Bump-Stock-Type Devices

Comments Received

Other miscellaneous comments included suggesting a ban only on future production and commercial sale of such items; enacting a quota on the number of devices that can be produced or possessed; enacting a Pigouvian tax, which is a tax imposed on a good that is calculated to reduce market quantity (and increase market price) in order to achieve the socially optimal level of the good; deferring action until Congress takes action; leaving the matter for State legislative action; improving security at mass-attended events; and improving law enforcement capabilities.

Department Response

The Department acknowledges comments on alternative suggestions for the regulation of bump-stock-type devices, but it does not have authority to implement many of the suggested alternatives. The Department does not have the authority to restrict only the future manufacture or sale of bump-stock-type devices, nor does it have the authority to remove the general prohibition on the transfer and possession of machineguns that were not lawfully possessed on the effective date of 18 U.S.C. 922(o). In addition, the Department lacks the authority to enact an excise tax on bump-stock-type devices.

As mentioned above, the Department does not agree with commenters that any change needs to be enacted by Congress or should be left to State legislatures. Congress passed both the NFA and GCA, delegating enforcement authority to the Attorney General. Accordingly, the Attorney General has the authority to promulgate regulations necessary to enforce the provisions of the NFA and GCA, and the Department determined that notice-and-comment rulemaking was the appropriate avenue to clarify the definition of "machinegun." In the interest of public safety and in light of the statutory definition of "machinegun," the Department has determined that Federal regulation of bump-stock-type devices is necessary. However, this action does not prevent Congress from taking action on bump-stock-type devices in the future.

The Department acknowledges comments on improving security at mass-attended events and agrees that it is important to improve law enforcement capabilities. The Department actively works with State and local law enforcement agencies to provide security at mass-attended events, as well as training and equipment for their departments.

G. Proposed Rule's Statutory and Executive Order Review

Comments Received

A few commenters suggested that ATF failed to comply with Executive Orders 12866, 13563, and 13771, including failing to identify and repeal two regulations for every new regulation issued. Commenters argued that ATF did not quantify the benefits of the rule, and it did not explain why those benefits were unquantifiable as required by OMB Circular A-4. Commenters stated that ATF did not identify the need for the proposed rule, in that ATF cited no evidence to support that the Las Vegas shooter used a bump-stock-type device. One commenter asked that ATF demonstrate how the cost-benefit analysis shows that the proposed rule is in the interests of gun owners, business owners, and the Federal Government. The commenter further suggested that ATF did not provide any citations or peer-reviewed research as evidence of the need for Federal regulatory action. Lastly, some commenters questioned how ATF determined the negative externalities that were presented in the NPRM.

Department Response

Executive Order 12866 and OMB Circular A-4 acknowledge that regulatory agencies should comply with them wherever possible or feasible. The Department interprets and adheres to the existing Executive Orders and OMB Circular A-4 to the extent that it is possible, using the best available information, and to the extent quantified information was available. Alternatively, wherever quantifiable means were not available, the Department considered qualitative costs, benefits, concerns, and justifications.

This rule is a significant regulatory action that clarifies the statutory definition of machinegun. By clarifying that bump-stock-type devices are machineguns subject to the restrictions of the NFA and GCA, the rule in effect removes those devices from the civilian marketplace. This final rule is an Executive Order 13771 regulatory action. See OMB, Guidance Implementing Executive Order 13771, Titled "Reducing Regulation and Controlling Regulatory Costs" (Apr. 5, 2017).

As for the need for Federal regulation, agencies are allowed to consider public safety as a compelling need for a Federal rulemaking. Executive Order 12866 expressly recognizes as appropriate exercises of agency rulemaking authority that "are made necessary by compelling public need, such as material failures of private markets to protect or improve the health and safety of the public, the environment, or the well-being of the American people." 58 FR 51735 (Oct. 4, 1993). As explained in the NPRM, the purpose of this rule is to amend ATF regulations to clarify that bump-stock-type devices are "machineguns" as defined by the NFA and GCA, with a desired outcome of increasing public safety. In accordance with OMB Circular A-4, the Department has provided information wherever possible regarding the costs, benefits, and justification of this rule.

As further requested by one commenter, this rule not only considers the implications of this rule on gun owners in the United States, business owners, and the Federal Government, but also considers the risk of criminal use of bump-stock-type devices and the general safety of the public to justify the issuance of this final rule.

H. Affected Population

Comments Received

There were a number of commenters who stated this rule will affect between 200,000 and 500,000 owners. Some commenters suggested that the estimated number of bump-stock-type devices should be higher, potentially over a million, than the estimated amount stated in the NPRM. Some commenters indicated that this would incorporate homemade devices, 3D-printed devices, or other devices made by personal means.

*66538 Department Response

In the NPRM, ATF did not estimate the number of owners. 83 FR at 13449. The 280,000-520,000 range in the Executive Order 12866 section of the NPRM is the estimated number of bump-stock-type devices in circulation, not the number of owners. While the Department does not know the total number of bump-stock-type devices currently extant, nor the number of owners, the Department's high estimate of 520,000 is still the primary estimate only for devices sold on the market. While it may be possible to make homemade devices, the Department cannot calculate the number of such devices or the likelihood of these devices circulating among the public. The Department is using the best available information, and there is no known information that would allow ATF to estimate such a number, much less achieve the level of accuracy that the public is requesting. Therefore, the estimates provided continue to be based upon the best available information.

I. Costs and Benefits

1. Costs to Purchasers

Comments Received

One commenter stated that some models of bump-stock-type devices never sold for less than \$425 plus taxes. Another commenter stated that the Department's regulatory analysis did not account for the individual cost in purchasing bump-stock-type devices, only manufacturers' and retailers' expenses. Other commenters suggested that the analysis did not account for taxes. One commenter suggested that the costs should incorporate the cost of purchasing a pre-1986 machinegun. One commenter suggested that many owners have bump-stock-type devices as the only stocks that they own and that purchasing a standard stock will need to be incorporated into the analysis.

Some commenters stated that the cost analysis does not include compensation for bump-stock-type devices and that the cost could be more than \$50 trillion. Other commenters indicated that the rule did not account for lost lives, treatment costs, decreased tourism, and costs of criminal investigations. Other commenters argued that ATF failed to consider other costs, such as loss of faith in ATF by the regulated industry and resentment for not being reimbursed for bump-stock-type devices.

Department Response

The Department concurs that certain models sold at the \$425.95 rate (a rate also included in ATF's range of costs published in the NPRM), representing the high end of the range of rates. 83 FR at 13451. However, bump-stock-type devices also sold for as low as \$100. Id. In order to account for the full range of prices, the Department used the average of the full range of prices; therefore, the average price of \$301 was used in the NPRM to account for the full range of market prices for these bump-stock-type devices. Id. As for the payment of taxes, the Department concurs that an unknown number of bump-stock-type-devices were sold, and individuals paid local taxes on them at time of purchase. For the purposes of this final rule, the Department maintains the average price used in the NPRM but incorporates the average cost of combined State and local taxes. For the purposes of this final rule, the Department estimates that the national average of taxes is 6.47% and attributed this tax rate to the price of all bump-stock-type devices that were sold on the market.[FN11]

See Jared Walczak & Scott Drenkard, State and Local Tax Rates in 2017, Tax Found. (Jan. 31, 2017), https://taxfoundation.org/state-and-local-sales-tax-rates-in-2017/.

The Department disagrees that the regulatory analysis did not account for the individual cost in purchasing bump-stock-type devices. The market price of bump-stock-type devices sold to the public represents the public price of these devices, which also accounts for the manufacturer and retail prices and does not double-count costs. While it may be possible for the public to purchase a pre-1986 machinegun, these amounts are not used to purchase bump-stock-type devices, so the market prices for these pre-1986 machineguns are not considered for purposes of this rule.

The Department reached out to the commenter who discussed the population of gun owners who will need to replace their bump-stock-type devices with standard stocks. The commenter was unable to provide a source establishing the existence of such gun owners and only speculated that this was a possibility. Having determined that this was speculation, the Department declined to incorporate this information into the analysis.

The Department does not propose compensation for bump-stock-type devices, so these costs were not included in the rule. See Part IV.D.1.b for a discussion of the Fifth Amendment's Takings Clause. Further, costs associated with victims, criminal investigations, loss of tourism, loss of faith in ATF by the regulated industry, and resentment for not being reimbursed for bump-stock-type devices are all indirect or unquantifiable costs of the rule and are not considered in the cost-benefit analysis.

2. Costs to Manufacturers, Employees, and Communities

Comments Received

Commenters suggested that this rule will cost manufacturers, employees, and families of manufacturers their livelihood. In particular, one commenter suggested that three additional manufacturers would have entered or re-entered the market after the lapse of the patent for the main manufacturer of bump-stock-type devices. Additionally, public comments suggested that the Department overlooked the capital expenses required to start a company.

Department Response

The Department has considered the effect that this rule will have on these manufacturers, employees, and families and acknowledges that they will no longer be able to manufacture bump-stock-type devices. The Department acknowledges that there will be a potential loss of wages from employees losing jobs from loss of manufacturing; however, the extent to which they are unable to find replacement jobs is speculative. The Department considered the capital expenses for manufacturers, including patents and equipment to start production. However, in light of the Las Vegas shooting and the estimated time it would have taken for the patents to expire, the Department has determined that there could be potential crowding of additional manufacturers and saturation of the market for bump-stock-type devices. Therefore, the viability of these businesses is speculative and the capital expenses that they incurred are a sunk cost for those who put in the expense. While the Department does not include capital expenses for manufacturing in the economic analysis, the Department had already considered the overall potential for return on investment for any manufacturers who would have remained in the market from the existing estimate of foregone production. Accounting for capital expenses would be double counting of expenditures. Therefore, the economic analysis for this portion remains the same.

3. Costs of Litigation

Comments Received

Commenters suggested that the Department did not account for the cost of litigation regarding the rule.

*66539 Department Response

Litigation costs are not a direct cost of the rule because such costs do not result from compliance with the rule. Additionally, any estimate of litigation expenses would be highly speculative and would not inform the Department's decision regarding the implementation of this final rule. However, the Department acknowledges that to the extent parties choose to enter into litigation regarding this final rule, there are indirect costs associated with that litigation.

4. Government Costs

Comments Received

Commenters suggested that this rule would cost the Government approximately \$297 million, including the disposal cost of the bump-stock-type devices. Other commenters indicated that confiscation costs were not included in the cost of the rule. One commenter provided estimates on the cost to house bump-stock-type device owners in prison as felons, particularly if a large number of owners opt not to destroy such devices. Lastly, one commenter suggested that ATF consider foregone sales taxes associated with ammunition used to fire bump-stock-type devices.

Department Response

In the NPRM, the Department estimated that the total cost of the rule for the general public (e.g., owners and manufacturers of bump-stock-type devices) would be about \$326.2 million over a 10-year period, not that the rule would cost the Federal Government that amount. 83 FR at 13454. The Department's estimate that Government costs are de minimis still stands for this final rule because the costs identified by these commenters are not Government expenditures. Further, costs associated with administering the option of current possessors of bump-stock-type devices abandoning their devices at their local ATF offices will be de minimis. The Department also disagrees that this rule will turn owners of bump-stock-type devices into felons. This final rule provides an effective date that allows ample time for current owners to destroy or abandon such devices. To the extent that owners timely destroy or abandon these bump-stock-type devices, they will not be in violation of the law or incarcerated as a result. However, if prohibited bump-stock-type devices are possessed after the effective date of the final rule, the person in possession of the bump-stock-type device will be in violation of Federal law.

While the usage of bump-stock-type devices may boost ammunition sales, the Department did not consider the loss of tax revenue collected from additional ammunition sales because they are speculative and are not a direct cost of the rule. Additionally, any estimate of tax revenue generated would not inform the Department's decision regarding the implementation of this final rule.

5. Benefits

Comments Received

Commenters stated that there are no quantifiable benefits to justify the costs of this rule, nor will it prevent criminal use of firearms. One commenter also stated that ATF did not explain why the benefits were unquantifiable as required by OMB Circular A-4. Some commenters suggested that ATF is required "by law" to quantify and monetize benefits. Commenters stated that the benefits do not outweigh the costs and ATF failed to conduct any analysis of the benefits of the rule and did not quantify the benefits. Further, commenters argued that ATF did not substantiate its assertion that bump-stock-type devices will be used more frequently in future crimes if this rule is not promulgated.

One commenter argued that the Department needed to separate the effects of using a bump-stock-type device from other factors that might have incremental effects on criminal activity, such as crowd density and angle of fire. The commenter stated that benefits must be reduced accordingly and must take into account a reduction in violence instead of elimination of the threat of violence from bump-stock-type devices. Many commenters argued that ATF cannot rely on the Las Vegas shooting as the measure of benefits for this rule.

Commenters discussed means of monetizing shooting incidents or comparing the death rates related to other items like motor vehicles, opiates, knives, and rocks. Other commenters in support of the rule suggested that ATF incorporate the financial and societal benefits of this rule.

Department Response

The Department declines to quantify benefits because OMB Circular A-4 requires quantifying and monetizing benefits only "if possible." OMB Circular A-4 at 45. One commenter provided descriptions on how to determine quantitative benefits of this rule and specifics on using a break-even analysis; however, due to limitations on data, the Department has considered the qualitative benefits for this rulemaking.

The Department did not account for the cost of deaths and injuries unrelated to bump-stock-type devices, as these are unrelated to this rule. This rule does not prohibit the use of firearms that could be used in shootings, or other items or devices. Furthermore, it is unclear how risk associated with other devices such as motor vehicles should influence ATF's decision-making. ATF has provided a cost-benefit analysis in both the NPRM and this final rule that fulfills the requirements of Executive Order 12866, OMB Circular A-4, the Regulatory Flexibility Act (RFA), and the Unfunded Mandates Reform Act.

J. Regulatory Flexibility Act

Comments Received

Some commenters suggested that the RFA requires examination of the future impact of the rule on innovation and of making a lawful product into an unlawful one.

Department Response

The Department disagrees that the RFA requires an examination of those specific factors. The RFA "requires agencies to consider the impact of their regulatory proposals on small entities, analyze effective alternatives that minimize small entity impacts, and make their analyses available for public comment." [FN12] The RFA "does not seek preferential treatment for small entities, nor does it require agencies to adopt regulations that impose the least burden on them, or mandate exemptions for them. Rather, it requires agencies to examine public policy issues using an analytical process that identifies barriers to small business competitiveness and seeks a level playing field for small entities, not an unfair advantage." [FN13]

- U.S. Small Business Administration, Office of Advocacy, A Guide for Government Agencies: How to Comply with the Regulatory Flexibility Act, at 1 (Aug. 2017), https://www.sba.gov/sites/default/files/advocacy/How-to-Comply-with-the-RFA-WEB.pdf.
- 13 Id.

The Department found that this rule significantly impacts small businesses related to bump-stock-type devices. The Department interprets the RFA to mean that small businesses should not be prevented from using innovations to compete with other businesses, and to account for small businesses when determining alternative approaches with respect to small businesses in the field.[FN14] At this time, there are only small businesses that manufacture bump-stock-type devices; therefore, no regulatory alternative was considered to *66540 alleviate the regulatory burden on small businesses with respect to competition with businesses that are not small.

14 Id.

K. Miscellaneous Comments

Commenters both in support of and in opposition to the proposed rule raised additional miscellaneous issues. These are discussed below.

1. Improve Background Checks

Comments Received

Separate from the suggested alternative, discussed above, that bump-stock-type devices be sold like firearms, many commenters voiced their general support for various enhancements to the existing Federal background check requirement. Commenters said the "gun show loophole" should be closed, and many called for universal background checks. At least one commenter suggested there should be psychiatric evaluations for firearms purchasers. Commenters making these points were largely supporters of the proposed rule, but at least a few commenters opposed to the rule also supported background checks. One opposed commenter said better communication between the relevant government agencies and tighter background checks were needed. A few opposed commenters suggested it would be more effective to have a more in-depth background check along with a minimum age of 21 or 25 and a five-day waiting period because they observed that young, alienated people have frequently been the perpetrators of mass shootings.

Department Response

The Department acknowledges comments on enhanced or expanded background checks, an increase in minimum age requirements, and waiting periods. The Department is aware of the importance of having accurate and complete information available to the NICS, which is managed by the FBI; further, the Department works with Federal and State agencies to ensure that necessary information is submitted to the system. The Department does not, however, have the authority to increase the minimum-age requirement or enact a mandatory waiting period to purchase a firearm.

2. Increase Criminal Penalties

Comments Received

Commenters on both sides of the issue suggested that there be more stringent criminal penalties for firearms offenses. Some commenters in support of the rule said there should be severe penalties for possessing a bump-stock-type device, or for manufacturing one through digital printing, or simply for anyone who manufactures or distributes bump-stock-type devices. Another commenter supporting the rule said that bump-stock-type devices should be prohibited from all public spaces where there is the potential for mass murder, but did not object to persons who wanted to use bump-stock-type devices on their own property or on hunting or shooting grounds. Some commenters opined that generally there should be more severe penalties for anyone using guns illegally or irresponsibly. A few commenters opposed to the rule suggested that in lieu of a rule prohibiting possession, a more effective deterrent would be severe penalties for the manufacture and sale of bump-stock-type devices, and that there should instead be swift and severe punishment, such as the death penalty for persons who commit or attempt to commit a mass shooting, or, more generally, that the law should be written to include mandated, nondiscretionary sentences.

Department Response

The Department does not have the authority to increase criminal penalties. Only Congress can increase, amend, or add new criminal penalties for Federal crimes.

3. Repeal the NFA and Hughes Amendment, and Remove Silencers

Comments Received

Numerous commenters opposed to the regulation viewed the proposed rule as an infringement on their rights. As part of their opposition to the proposed rule, some commented that the NFA itself is inherently unconstitutional and declared that it should

be repealed. Commenters similarly questioned the constitutionality of the Hughes Amendment (18 U.S.C. 922(o)), which was enacted as a part of the Firearms Owners' Protection Act in 1986 and prohibits possession by individuals of any post-1986 machinegun. These commenters declared it should be repealed. A majority of these commenters simply objected to any further firearms restrictions and insisted these laws be repealed in order to restore freedoms they believe to have been steadily eroded by the Government. Some commenters noted that bump-stock-type devices evolved as a workaround to the NFA and Hughes Amendment restrictions so that shooters could have an affordable alternative to shoot in a manner that is close to a machinegun. Some opined that that a rule prohibiting bump-stock-type devices would be acceptable so long as these other restrictions are lifted to give individuals affordable access to machineguns. A few commenters also added that silencers should be removed from the NFA's coverage or be made available like any other firearm device, with at least one commenter stating that the Hearing Protection Act or Sportsmen's Heritage and Recreational Enhancement (SHARE) Act should be passed.

Department Response

The Department does not have the authority to repeal or amend provisions of the NFA, such as by removing silencers from the NFA. The NFA is a statute, which only Congress may repeal or alter. ATF does not have the authority to remove the general prohibition on the transfer and possession of machineguns that were not lawfully possessed before the date 18 U.S.C. 922(o) became effective, nor does it have the authority to permit nongovernmental entities to possess machineguns or other NFA firearms that are not lawfully registered in the NFRTR. Only Congress can alter these provisions. However, as stated, ATF does have the authority to implement the existing statute and has utilized the rulemaking process to do so.

4. Focus on Mental Health and Other Gun Control Measures

Comments Received

Supporters argued that in addition to finalizing the rule, more attention needs to be paid to improving mental health care. Generally, these commenters suggested there should be more spending on the mental health system so as to increase access.

Numerous commenters in support of the rule also listed several other proposals pertaining to gun safety or gun control measures that should be implemented. Almost 5,000 commenters expressed that "other conversion devices" along with bump-stock-type devices should be banned. And more than 1,500 commenters also called for a ban on "assault weapons" or firearms altogether, while several others specifically stated that there should be restrictions on high-capacity magazines. Some commenters provided many other suggestions, including a higher age limit to acquire a firearm, written tests for firearm access, mandatory gun safety classes, proper storage inspections, a nationwide gun registry, licensure and gun ownership insurance requirements, ammunition limits, and protocols for removing firearms from domestic abusers and the mentally ill through protective orders.

*66541 Department Response

The Department acknowledges the importance of improving mental health care. However, mental health treatment does not fall under the Department's authority.

Although this rulemaking specifically addresses bump-stock-type devices, any item that meets the definition of a "machinegun" will be regulated as such and cannot be possessed unless legally registered. But only Congress can add additional requirements that must be met in order to purchase a firearm.

The Department does not have the authority to remove firearms from persons who are not prohibited from receiving or possessing them under Federal law. Only Congress can amend or add new categories of prohibited persons.

L. Comments on the Rulemaking Process

1. Availability of Supporting Documentation

Comments Received

A handful of commenters argued that the procedures of the APA were not properly followed, in part because ATF did not include any supporting documentation on how it formulated its decision to regulate bump-stock-type devices. In particular, commenters stated that although they submitted Freedom of Information Act requests, ATF did not make available its own prior letter determinations that classified various bump-stock-type devices as firearm parts not subject to the NFA or GCA, nor did ATF make available any evidence suggesting that there have been other instances of criminal use of a bump-stock-type device. This kind of documentation, they argued, would provide the basis upon which the agency justified its proposed rule and therefore should be made public in order to allow for meaningful comment under the APA.

Department Response

Contrary to the commenters' arguments, the Department believes that it provided all of the background information necessary to allow meaningful public participation. The APA, 5 U.S.C. 553(b), provides that "[g]eneral notice of proposed rule making shall be published in the Federal Register," and that this notice shall include, inter alia, "either the terms or substance of the proposed rule or a description of the subjects and issues involved." Federal courts have recognized that they must determine whether regulations are consistent with statutes, and "whether the process used in arriving at those regulations afforded those affected... their procedural due. More specifically, in the informal rulemaking context..., this inquiry asks whether the agency gave 'interested persons an opportunity to participate in the rule making through submission of written (or other) data' and whether it 'incorporate(d) in the rule adopted a concise general statement of their basis and purpose.' "Weyerhaeuser Co. v. Costle, 590 F.2d 1011, 1024 (D.C. Cir. 1978) (quoting 5 U.S.C. 553). A "notice of proposed rulemaking must provide sufficient factual detail and rationale for the rule to permit interested parties to comment meaningfully." Honeywell Int'l, Inc. v. EPA, 372 F.3d 441, 445 (D.C. Cir. 2004) (internal quotation marks omitted).

The Department agrees with commenters that interested parties will not be able to make meaningful comments upon an agency's proposed regulation if the notice "fails to provide an accurate picture" of the agency's reasoning. Conn. Light & Power Co. v. NRC, 673 F.2d 525, 528 (D.C. Cir. 1982). Commenters fail, however, to recognize that the text of the NPRM set out the facts necessary to "provide an accurate picture" of the Department's reasoning. In the NPRM, the Department articulated the reasons for its proposed change in the classification of bump-stock-type devices, provided detailed descriptions and explanations of its prior classifications, and offered thorough explanations of its past and current analysis. Accordingly, the Department believes that it provided notice to the public, in sufficient factual detail, to permit interested parties to comment meaningfully on the proposed rule.

2. Previous "Lack of Candor"

Comments Received

One commenter also included an extensive description of ATF's "prior lack of candor," including instances where ATF purportedly (1) committed "institutional perjury" before the courts in the context of criminal prosecutions and supporting probable-cause showings for search warrants; (2) committed deception and delayed responding with respect to congressional inquiries regarding NFRTR inaccuracies as well the "Fast and Furious" investigation; and (3) misled the public about the accuracy of the NFRTR. According to the commenter, these episodes highlight a pattern of procedural irregularities that should draw further scrutiny of this rulemaking.

Department Response

These comments are beyond the scope of this rulemaking, but the Department notes that ATF has committed available resources to develop the NPRM and respond to comments as part of the rulemaking process. In developing this rulemaking and responding to comments, ATF has followed all established procedures and complied with all relevant policies and requirements.

3. 90-Day Public Comment Period

Comments Received

One commenter asserted that the agency failed to provide the statutorily mandated 90-day public comment period. The commenter relied on an online article that "detail[ed] the trials and tribulations of trying to find the appropriate docket," given that some commenters indicated that they encountered a "Comment Period Closed" notification on the FederalRegister.gov website when the NPRM was published on March 29, 2018. The author of the online article said that he submitted an inquiry to ATF asking why the comment period appeared closed when it should have been open through June 27, 2018, and why the website, at various times, depicted different numbers for the amount of comments ATF received. The author's description of events concluded by noting that he received a response from ATF with a specified weblink to Regulations.gov where he could submit a comment but that none of his comments submitted were visible on the website. Relying primarily on this online account, the commenter asserts that ATF did not disclose this weblink to the public and that numerous people believed that the comment period was closed from the very beginning of the comment period and were therefore precluded from submitting comments. The commenter therefore believes that the comment period should be extended because ATF did not permit the statutorily mandated 90-day comment period.

Department Response

The Department acknowledges that upon publication of the NPRM on March 29, 2018, there was some confusion within the first 24 to 48 hours about submitting comments through the Federal eRulemaking Portal (www.Regulations.gov), which is managed and maintained by a third-party host. ATF was in touch with the managers of the Federal eRulemaking portal, and relayed an explanation of these technical issues to the author of *66542 the online article in two subsequent emails dated April 2 and April 3, 2018. However, there is no evidence that the proposed rule was not available for public comment for the 90-day comment period. On the contrary, ATF received numerous comments from the very beginning of the comment period.

ATF explained to the author of the article that on March 29, 2018, when the comment period opened for the NPRM, the link for submitting comments to the NPRM had been inadvertently connected to the Regulations.gov Docket ID number 2018-0001-0001, which had been used by the Regulations.gov website for the ANPRM comment period, December 26, 2017, through January 25, 2018. On March 29, 2018, the same day the proposed rule was published in the Federal Register, individuals were able to and did submit comments for the NPRM even though it was linked to the Docket ID used for the ANPRM. Realizing that the link for the NPRM should not have been listed under the ANPRM Docket ID, a new Docket ID number (2018-0002-0001) was created for the NPRM. These Docket ID numbers are created by the third-party managers of Regulations.gov for purposes of the website. ATF uses its own docket number, 2017R-22, as seen in the text of the ANPRM and NPRM.

Once the third-party managers of Regulations.gov created a new Docket ID number for the NPRM with a "Comment Now" feature, they eliminated the ability to submit NPRM comments under the old ANPRM Docket ID. The Department acknowledges that there was some confusion because there was a brief period on March 29, 2018, during which the ANPRM link (2018-0001-0001) was prominently situated on the homepage of the Regulations.gov website even though that link was no longer able to accept comments for the NPRM. Despite the brief prominence of the old ANPRM Docket ID on the Regulations.gov website, the public had the ability to submit comments through the Federal eRulemaking Portal for the NPRM at all times, as a simple search for "bump stock" in the main search bar on Regulations.gov during this time would have displayed the link for the new NPRM Docket ID, which was active and accepting comments. Moreover, some individuals confused about how to comment on Regulations.gov called ATF's Office of Regulatory Affairs, which was able to assist them.

ATF also responded to the author's inquiry regarding the discrepancy in the numbers showing the amount of comments received. Over the weekend of March 31, 2018, the third-party managers of Regulations.gov transferred all comments submitted for the NPRM through the ANPRM Docket ID to the new NPRM Docket ID. ATF was informed that the number of comments displayed on Regulations.gov updated only once a day and therefore would harmonize over the next few days as ongoing system

maintenance occurred. Ultimately, the website depicting the amount of comments received reflects all comments received since March 29, 2018, the beginning of the comment period.

To answer the author's inquiry as to why his comments submitted were not visible on Regulations.gov, ATF reminded the online author that Part VII.C of the NPRM, which described the three methods for submitting public comments, informed the public that comments submitted through Regulations.gov "will be posted within a few days of being submitted. However, if large volumes of comments are being processed simultaneously, . . . comment[s] may not be viewable for up to several weeks." Since the beginning of the comment period, ATF received a high volume of comments and, as forewarned, there was a delay between the time comments were submitted and when they became viewable on the website, assuming the comment met the posting guidelines stated in Part VII.A of the NPRM. By April 3, 2018, two of the online author's comments were visible on Regulations.gov, and the agency provided him with direct weblinks to his comments.

Accordingly, the Department disagrees that the agency failed to provide the statutorily mandated 90-day public comment period. Moreover, the Department notes that the Federal eRulemaking Portal is one of the three methods available for the public to submit comments during the 90-day comment period. Therefore, the public also had the ability to submit comments via mail or facsimile during the entire 90-day period.

The Department believes the numerous examples provided by the commenter of cases in which Federal agencies extended comment periods are inapplicable to this rulemaking. The specific scenarios the commenter listed were apparently all the result of the lapse in government funding that occurred in October 2013. At that time, agencies were largely unstaffed, and insufficient personnel were available to process the comments. This rulemaking has not involved similar difficulties.

4. Request for Public Hearing

Comments Received

A few commenters requested a hearing pursuant to the NPRM because they want the opportunity to be heard before ATF prescribes any rule. One commenter stated that 18 U.S.C. 926(b) requires ATF to hold a public hearing when such is requested because the statute provides that the Attorney General "shall afford interested parties opportunity for hearing, before prescribing . . . rules and regulations [under 18 U.S.C. ch. 44]."

Department Response

The Department is not persuaded that a public hearing is necessary or appropriate in connection with this rulemaking. The Department believes that a comprehensive public record has already been established through the comment process, which generated over 186,000 comments, some of which included substantial discussions of the rulemaking. The Department does not believe that a public hearing would meaningfully add data or information germane to the examination of the merits of the proposal or would provide substantive factual information that would assist the Department in improving the rule in material ways. Furthermore, the Department believes that it has made changes to this rule and included clarifications in the preamble that address the important issues raised by parties who requested a hearing. In light of all the circumstances, a public hearing is unnecessary.

The Supreme Court has held that it is not necessary for an agency to hold a public hearing on a rulemaking simply because it receives a request for one. In both United States v. Allegheny-Ludlum Steel Corp., 406 U.S. 742 (1972), and United States v. Florida East Coast Railway, 410 U.S. 224 (1973), the Court established the rule that it is necessary to examine the particular statute involved when determining whether notice-and-comment procedures under 5 U.S.C. 553 are available or, alternatively, whether there is a right to a formal hearing. In general, unless a statute specifically provides for rules to be made on the record after a hearing, the Federal courts have held that the informal rulemaking procedure is applicable. Thus, even statutory language such as "due notice and opportunity for a public hearing," and "opportunity for hearing," have been held to mandate only informal procedures under 5 U.S.C. 553. See 3 Administrative Law 16.03 (2018).

One Federal court specifically addressed the language in 18 U.S.C. *66543 926(b), on which one commenter relied, and rejected the commenter's position. In that case, the plaintiff contended "that all of the regulations must be invalidated because the Secretary failed to follow the procedures mandated in FOPA by refusing to afford interested parties an opportunity for an oral hearing." However, the court held that the agency provided an "opportunity" for a hearing even though it decided against an oral hearing. The court wrote:

FOPA contains no provision guaranteeing interested parties the right to an oral hearing. . . . It is well-settled that the requirement of a hearing does not necessitate that the hearing be oral. Here, the Secretary, pursuant to regulation, reserved for himself the right to determine whether an oral hearing should be held. He ultimately determined that an oral hearing was unwarranted, but did provide interested parties with the opportunity to submit written comments. This is all the hearing requirement in § 926(b) demands.

Nat'l Rifle Ass'n v. Brady, 914 F.2d 475, 485 (4th Cir. 1990) (citations omitted). Here, the Department has made the same determination that an oral hearing is unnecessary.

V. Final Rule

This final rule adopts, with minor changes, the proposed amendments to the definition of "machine gun" in 27 CFR 447.11, 478.11, and 479.11, which include clarification of the meaning of "automatically" and "single function of the trigger" and clarification that bump-stock-type devices are machineguns. The Department accordingly determined that persons in possession of bump-stock-type devices must destroy or abandon the devices.

In response to comments received and discussed in Part IV, the Department added employees of manufacturers and one additional manufacturer to the populations potentially affected by this rule, and incorporated sales tax of \$19.00 per bump-stock-type device as part of the economic analysis. Also, the Department considered additional alternatives and inserted an OMB Circular A-4 Accounting Statement for clarity.

VI. Statutory and Executive Order Review

A. Executive Orders 12866, 13563, and 13771

Executive Orders 13563 (Improving Regulation and Regulatory Review) and 12866 (Regulatory Planning and Review) direct agencies to assess the costs and benefits of available regulatory alternatives and, if regulation is necessary, to select regulatory approaches that maximize net benefits (including potential economic, environmental, public health, and safety effects, distributive impacts, and equity). Executive Order 13563 emphasizes the importance of quantifying both costs and benefits, reducing costs, harmonizing rules, and promoting flexibility. Executive Order 13771 (Reducing Regulation and Controlling Regulatory Costs) directs agencies to reduce regulation and control regulatory costs. This final rule is expected to have an impact of over \$100 million in the first year of this regulatory action. Details on the estimated costs of this final rule can be found in the rule's economic analysis below.

The Attorney General has determined this rule is a "significant regulatory action" that is economically significant under section 3(f)(1) of Executive Order 12866 because, as discussed, the rule will have an annual effect on the economy of \$100 million or more. Accordingly, the rule has been reviewed by the Office of Management and Budget. This rule is a significant regulatory action that clarifies the meaning of the statutory definition of machinegun and reflects the public safety goals of the NFA and GCA. Further, this rule is a regulatory action subject to Executive Order 13771. See OMB, Guidance Implementing Executive Order 13771, Titled "Reducing Regulation and Controlling Regulatory Costs" (Apr. 5, 2017).

This final rule is intended to interpret the definition of "machinegun" within the NFA and GCA such that it includes a bump-stock-type device, i.e., a device that allows a semiautomatic firearm to shoot more than one shot with a single pull of the trigger

by harnessing the recoil energy of the semiautomatic firearm to which it is affixed so that the trigger resets and continues firing without additional physical manipulation of the trigger by the shooter.

Accounting Statement

Table 1 provides the annualized and unquantified costs and benefits to this final rule. These costs are annualized and discounted at 3% and 7%.

Table 1—OMB Circular A-4 Accounting Statement

| Part IV | | | | | | | |
|---|-------------|------------|------|------------|------|------------|-------------|
| Category Primary estimate Minimum estimate Midrange estimate | Source | | | | | | |
| Benefits | | | | | | | |
| Annualized monetized benefits (discount rate in parentheses) | (7%) | N/A | (7%) | N/A | (7%) | N/A | Final Rule. |
| | (3%) | N/A | (3%) | N/A | (3%) | N/A | |
| Unquantified Benefits (05)• Limit access to bump-stock-type devices | Final Rule. | | | | | | |
| (05)• Prevents usage of bump-stock- type devices for criminal purposes. | | | | | | | |
| (05)• Intended to reduce casualties in mass shootings. | | | | | | | |
| (05)• Intended to help protect first responders when responding to shooting incidents. | | | | | | | |
| Costs | | | | | | | |
| Annualized monetized costs (discount rate in parentheses) | (7%) | \$35.0 mil | (7%) | \$28.9 mil | (7%) | \$32.0 mil | Final Rule. |
| | (3%) | \$32.8 mil | (3%) | \$27.6 mil | (3%) | \$31.2 mil | Final Rule. |
| Qualitative costs (unquantified) (05)• Potential loss of wages for employees of bump-stock-type device manufacturers | Final Rule. | | | | | | |
| (05)• Costs of advertising to inform owners of the need to dispose of their bump-stock-type devices | | | | | | | |
| (05)• Lost consumer surplus to users of bump-stock-type devices. | | | | | | | |
| Transfers | | | | | | | |

Annualized monetized transfers: "on Final Rule. budget" 0 0 0 From whom to whom? N/A N/A N/A Annualized monetized transfers: "off- Final Rule. budget" 0 0 0 From whom to whom? N/A N/A N/A None.

| Table 1—OMB Circular A-4 Accounting Statement—Conti | hound |
|---|-------|

| Category (01)Primary estimate (01)Minimum estimate | Source |
|--|-----------------|
| (01)Midrange estimate | |
| No. 11 (as) For | |
| Miscellaneous analysis/category (05)Effects | Source citation |
| Effects on State, local, and/or tribal governments (05)None. | None. |
| | |
| Effects on small businesses (05)Significant effect on small | RFA. |
| businesses. Prepared FRFA. | |
| Effects on wages (05)None. | None. |
| Effects off wages (03)(volic. | None. |
| Effects on growth (05)None. | None. |
| | |

*66544 Need for Federal Regulatory Action

Agencies take regulatory action for various reasons. One of the reasons is to carry out Congress's policy decisions, as expressed in statutes. Here, this rulemaking aims to apply Congress's policy decision to prohibit machineguns. Another reason underpinning regulatory action is the failure of the market to compensate for negative externalities caused by commercial activity. A negative externality can be the byproduct of a transaction between two parties that is not accounted for in the transaction. This final rule is addressing a negative externality. The negative externality of the commercial sale of bump-stocktype devices is that they could be used for criminal purposes. This poses a public safety issue that the Department is trying to address.

Summary of Affected Population, Costs, and Benefits

Table 2 provides a summary of the affected population and anticipated costs and benefits to promulgating this rule.

Table 2—Summary of Affected Population, Costs, and Benefits

| Category | Affected populations, costs, and benefits |
|---------------------|--|
| Applicability | Manufacturers of bump-stock-type devices. |
| | • Employees of bump-stock-type device manufacturers. |
| | • Retail sellers of bump-stock-type devices. |
| | • Gun owners who own bump-stock-type devices or would have purchased them in the future. |
| Affected Population | • 1 manufacturer of bump-stock-type devices. |

| • 2,281 r | etailers | of bum | p-stock-type | devices. |
|-----------|----------|--------|--------------|----------|
|-----------|----------|--------|--------------|----------|

• Owners and future consumers of bump-stock-type devices.

Total Quantified Costs to Industry, Public, and Government (7% Discount Rate)

- \$245.5 million present value over 10 years.
- \$35.0 million annualized.

Unquantified Costs

- Potential loss of wages for employees of bump-stock-type device manufacturers.
- Costs of advertising to inform owners of the need to dispose of their bump-stock-type devices.
- Lost consumer surplus to users of bump-stock-type devices.

Unquantified Benefits

- Limits access to bump-stock-type devices.
- Prevents usage of bump-stock-type devices for criminal purposes.
- Intended to reduce casualties in mass shootings.
- Intended to help protect first responders when responding to shooting incidents.

Changes from the NPRM to FR

Table 3 presents a summary of the changes to economic effects from NPRM to final rule.

Table 3—Changes in Bump-Stock-Type Devices From NPRM to the Final Rule

| Variables | NPRM | Final Rule | Difference | Description of Changes |
|------------------------------------|-----------------|---|--|--|
| Applicability | N/A | Employees of bump-stock-type device manufacturers | Adding employees of bump-stock-type device manufacturers | Per public comment, ATF included employees of manufacturers qualitatively. |
| | 2 manufacturers | 1 manufacturer | Subtracted 1 | Based on publicly available information. |
| Cost of Bump-Stock-Type Devices | \$301 | \$320 | \$19 | Per public comment, ATF included State and local taxes. |
| Destruction | \$5.4 million | \$9.4 million | \$3.9 million | Change in policy. |
| Future Sales | \$213.0 million | \$198.9 million | \$14.1 million | Change from 2 large retailers selling bump-stock-type devices to 1. |
| Government Cost | \$0 | \$1.3 million | \$1.3 million | Change in policy. |
| Alternatives | | | | |

Amnesty or Per public comment. "grandfathering" (02)This alternative was rejected because since the passage of 18 U.S.C. 922(o), amnesty registration of machineguns is not legally permissible Licensing and background Per public comment. checks (02)This alternative was rejected because only Congress can add a new class of firearm and impose licensing or acquisition requirements on them. Remuneration (02)This Per public comment. alternative was rejected because only Congress has the authority to offer monetary compensation. Medical exemption (02)This Per public comment. alternative was rejected because neither the NFA nor the GCA provides for medical exemptions to acquire a firearm. Only Congress can add medical exemptions Future production and sales Per public comment. (02)This alternative was rejected because ATF does not have the authority to restrict only the future manufacture or sale of bump-stock-type devices Quota (02)This alternative was Per public comment. rejected because ATF lacks authority to implement it, as all devices determined to be machineguns are prohibited across the board Instituting a tax (02)This Per public comment. alternative was rejected because excise tax is regulated by statute and only Congress can determine the amount of excise tax on an item

Per public comment.

Improved security at mass

events (02)This alternative was rejected because improved security must be paired with reasonable regulations to

increase public safety and reduce violent crime

Congressional legislation (02)This alternative was rejected because ATF has been delegated authority to issue rules to implement the NFA and GCA. This action will not prevent Congress from taking

action on bump-stock-type

devices

Per public comment.

Leave to States to regulate (02)This alternative was rejected because ATF prioritizes public safety and preventing crime. This action will not prevent States from taking action on bump-stocktype devices

Per public comment.

Improved law enforcement (02)This alternative was rejected because training and equipment must be paired with reasonable regulatory efforts to increase public safety and reduce violent crime

Per public comment.

*66545 Affected Population

The populations affected by this rule are manufacturers of bump-stock-type devices, employees of bump-stock-type device manufacturers, retailers who sell them either in brick-and-mortar stores or online, and individuals who have purchased or would have wanted to purchase bump-stock-type devices. The number of entities and individuals affected are as follows:

- 1 manufacturer
- 2,281 retailers
- An uncertain number of individuals who have purchased bump-stock-type devices or would have purchased them in the future [FN15]
- 15 Note that many commenters assumed that each person who owns a bump-stock-type device owns one device. This overestimates the number of owners because owners of such devices may own more than one, as evidenced by the Las Vegas shooter, who allegedly owned at least 12.
- An estimated 22 employees who were employed by one manufacturer, based on public comments [FN16]
- 16 Regulations.gov, Docket ID: ATF-2018-0002-16668, available at https://www.regulations.gov/document?D=ATF-2018-0002-16668 (last visited Nov. 16, 2018).

Because many bump-stock-type devices—including those ATF addressed in classification letters between 2008 and 2017 have not been subject to regulation under the GCA, ATF does not keep track of manufacturers or retailers of bump-stocktype devices, nor does ATF keep track or maintain a database of individuals who have purchased bump-stock-type devices. Therefore, the affected population of manufacturers and retailers is an estimate and based on publicly available information and, with respect to retailers who are also Federal firearms licensees (FFLs), is also based on ATF's records in the Federal Firearms Licensing System.

Based on publicly available information and comments on the NPRM, ATF estimates that since 2010, as many as seven domestic bump-stock-type device manufacturers have been in the marketplace, but due to patent infringement litigation, only three remained in the market. However, it appears two have ceased manufacturing bump-stock-type devices since publication of the NPRM due their inability to obtain liability insurance. For the estimate of the number of retailers, ATF filtered all FFLs for a list of potential sellers. While there are approximately 80,000 FFLs currently licensed, only certain types of FFLs sell firearms to the public. ATF first removed FFLs that do not sell firearms to the public. Next, since not all FFLs sell firearm accessories, ATF needed to estimate the number that do sell accessories. ATF assumed that FFLs that are likely to sell bump-stock-type devices also have websites. ATF ran a query on the FFL database and found that of those that sell firearms to the public, 2,270 have websites. Because sellers of firearm accessories do not necessarily sell firearms, ATF also performed an online search and found an additional 11 retailers who sell firearm accessories, but not firearms. Adding these two totals together, ATF estimates that there are 2,281 retailers of bump-stock-type devices.

Because there are no records of individuals who have purchased firearm accessories, ATF does not have an estimated number of individuals who will be affected by this final rule. Although ATF lacks data on the number *66546 of individuals who have purchased bump-stock-type devices, ATF has some information from one manufacturer and four retailers on the volume of sales of such devices. Based on these reported amounts, ATF estimates that the number of bump-stock-type devices that were purchased during the 8-year period beginning in 2010 ranges from 35,000 per year as a low estimate to 75,000 per year as the high and primary estimate. ATF used a public commenter's estimate of 400,000 total devices in circulation as a third estimate. For further information on the methodology of these estimates, please review the analysis regarding "Costs" below.

Costs

There are four primary sources of costs from this rule. First, for owners of bump-stock-type devices, there will be a lost value from no longer being able to possess or use the devices. Second, there will be a lost value from future sales of the devices. Third, there is a disposal cost associated with the need to destroy the devices or abandon them at the nearest ATF office. Finally, there will be a potential loss of wages from employees losing jobs from loss of manufacturing; however, the extent to which they will be unable to find replacement jobs is speculative.

Manufacturing and Startup Cost

Commenters suggested that ATF overlooked the capital expenses to start up a company to manufacture bump-stock-type devices. The Department considered the capital expenses for manufacturers. However, in light of the Las Vegas shooting and potential crowding of additional manufacturers, the Department determined that the potential for manufacturers to continue business in a potentially saturated market was doubtful. Furthermore, the Department has already calculated the foregone return on investment when the Department considered foregone production, so accounting for capital expenses would be double counting of expenditures. Therefore, the viability that these businesses will be successful is speculative and the capital expenses that they incurred are a sunk cost for those who put in the expense.

Cost to the Public for Loss of Property

One reason individuals purchase bump-stock-type devices is so that they can simulate automatic firing on a semiautomatic firearm. Commenters noted a variety of purposes for which bump-stock-type devices have been advertised and used, including for recreation and fun, assisting persons with mobility issues in firing quickly, self-defense, killing invasive pig species, and target practice (although, as some commenters observed, bump-stock-type devices impede firing accuracy). After implementation of this final rule, bump-stock-type devices that meet the definition of "machinegun" under the NFA and GCA

cannot be lawfully possessed because the pertinent provision of the GCA, 18 U.S.C. 922(o), prohibits persons from possessing a machinegun unless it was lawfully possessed before the effective date of section 922(o). Bump-stock-type devices currently possessed by individuals will have to be destroyed or abandoned prior to the effective date of this regulation.

The lost value from no longer being able to use or purchase bump-stock-type devices will depend on the volume of sales in the market and the value that consumers place on the devices. ATF has limited information about the market for bump-stock-type devices. ATF first developed an estimate of the number of bump-stock-type devices in the marketplace based on information on retail sales provided in response to the ANPRM. One ANPRM commenter estimated that more than 400,000 bump-stock-type devices may have been sold. Based on publicly available information, ATF estimates that in the first two years that bump-stock-type devices were in the market, approximately 35,000 were sold per year.[FN17] However, after 2011, other manufacturers entered the market and there is no available information regarding the total number of bump-stock-type devices manufactured. ATF is using publicly available information on manufacturing and combining it with the information on retail sales to estimate a range of the number of bump-stock-type devices in the marketplace.

Donnie A. Lucas, Firing Up Some Simple Solutions, Albany News (Dec. 22, 2011), http://www.thealbanynews.net/archives/2443.

One retailer stated that it sold an average of 4,000 to 5,000 bump-stock-type devices per year.[FN18] One commenter indicated that one retailer sold 3,800 bump-stock-type devices annually, one sold 60 per year, and one sold approximately 5-10 per year. [FN19] For the purposes of this regulatory analysis (RA), ATF assumes that a large retailer has sold 4,400, a midrange retailer has sold 60, and a small retailer has sold 8.[FN20] For the purposes of this analysis, ATF assumes the number of retailers by size are as follows:

- Based on an internal survey of large retailers.
- Regulations.gov, Docket ID: ATF-2018-0001-27509, https://www.regulations.gov/document?D=ATF-2018-0001-27509 (last visited on Nov. 16, 2018); Regulations.gov, Docket ID: ATF-2018-0001-0433, https://www.regulations.gov/document?D=ATF-2018-0001-0433 (last visited on Nov. 16, 2018); Regulations.gov, Docket ID: ATF-2018-0001-0128, https://www.regulations.gov/document?D=ATF-2018-0001-0128 (last visited on Nov. 16, 2018).
- For a large retailer the average sales were $4{,}400 = (3{,}800 + 5{,}000)/2$. For a small retailer, the average sales were 8 = (5 + 10)/2.
- 4 large * 4,400 annual sales
- 755 midrange * 60 annual sales
- 1,511 small * 8 annual sales

The number of large retailers is a known number. As stated in the Affected Population section above, based on ATF's internal database and online research, the remaining number of retailers is 2,270. For the purposes of this RA, ATF estimated that one-third of the remaining retailer population are midrange retailers, and the remaining 1,511 are small retailers. Using these estimated numbers of retailers and annual sales by size of retailer, ATF estimated annual sales of about 75,000 [(4 * 4,400) + (755 * 60) + (1,511 * 8)].

ATF next developed an estimate of the number of bump-stock-type devices in the United States based on information about the number of bump-stock-type devices manufactured. Based on publicly available information, ATF estimates that approximately 35,000 bump-stock-type devices were sold in 2010.[FN21] Only in 2012 did other manufacturers enter the marketplace. For the purposes of this RA, ATF assumes that in the first two years of production, the one manufacturer produced the same 35,000 in years 2010 and 2011. ATF has two sets of production estimates. Because no information is otherwise known about the production of bump-stock-type devices, ATF assumes that the low estimate of annual bump-stock-type device production is a constant 35,000, based on the one data point. As stated earlier, a public commenter provided an estimate of 400,000 bump-stock-type devices currently in circulation. To account for how these were purchased over the last 8 years, ATF also assumed the

same 35,000 production in the first 2 years, but spread out the remaining 330,000 over the remaining 6 years, or about 55,000 per year. However, there were public comments that stated how many bump-stock-type devices were sold by that retailer. Using the retail sales information, ATF developed a third, higher estimate reflecting that when the other manufacturers entered the market, the number of bump-stock-type devices sold on the market annually could have been 75,000.

Lucas, supra note 17.

The high estimate is ATF's primary estimate because ATF knows that there *66547 was an increase in production starting in 2012. In 2012, there were other manufacturers who entered the market, and the first manufacturer increased production at some point thereafter. Furthermore, the primary estimate includes information provided by retailers as a more comprehensive outlook on the overall production numbers. For the purposes of this analysis, ATF assumes that both the increase in production and the market entry of other manufacturers all occurred in 2012. Table 4 provides the breakdown of production for the low estimate, public comment estimate, and primary estimate.

Table 4—Number of Bump-Stock-Type Devices Produced, Based on Manufacturer and Retail Sales

| Year | Low estimate | Public | Primary |
|-------|--------------|----------|----------|
| | | comment | |
| | | estimate | |
| | | | estimate |
| 2010 | 35,000 | 35,000 | 35,000 |
| 2011 | 35,000 | 35,000 | 35,000 |
| 2012 | 35,000 | 55,000 | 75,000 |
| 2013 | 35,000 | 55,000 | 75,000 |
| 2014 | 35,000 | 55,000 | 75,000 |
| 2015 | 35,000 | 55,000 | 75,000 |
| 2016 | 35,000 | 55,000 | 75,000 |
| 2017 | 35,000 | 55,000 | 75,000 |
| Total | 280,000 | 400,000 | 520,000 |

In other words, the number of bump-stock-type devices held by the public could range from about 280,000 to about 520,000.

ATF does not know the production cost of bump-stock-type devices, but for the purposes of this RA, ATF uses the retail sales amounts as a proxy for the total value of these devices. For devices that have already been sold, there are two countervailing effects that affect the value of the devices. There may have been some depreciation of the devices since they were originally purchased, resulting in a value somewhat reduced from the retail price. On the other hand, some consumers may have been willing to pay more than the retail price for a bump-stock-type device, and for these individuals the devices would have a higher valuation than the retail price. Both of these effects are difficult to estimate, and here ATF assumes that the retail sales price is a reasonable proxy for the value of the devices.

The primary manufacturer of bump-stock-type devices sells them at a price of \$179.95 to \$425.95.[FN22] For the purposes of this RA, ATF estimates that the average sale price, including State and local taxes, for these bump-stock-type devices was \$320.00 during the first two years they were sold. In 2012, at least one other manufacturer entered the market and started selling its devices at the rate of \$99.99, making the overall prices for these devices lower.[FN23] For the purposes of this RA, ATF assumes that the average sale price, including State and local taxes, for bump-stock-type devices from 2012 to 2017 was \$213.00. Based on these costs, multiplied by the number of bump-stock-type devices in the market, Table 5 provides the sales value that the public has spent on these devices over the course of the last eight years.

Table 5—Amount Spent on Bump-Stock-Type Devices

| [Undiscounted] | | | | | |
|----------------|--------------|-------------------|--------------|--|--|
| Year | Low estimate | Midrange estimate | Primary | | |
| 2011 | \$11,214,896 | \$11,214,896 | \$11,214,896 | | |
| 2012 | 11,214,896 | 11,214,896 | 11,214,896 | | |
| 2013 | 7,470,511 | 11,739,374 | 16,008,237 | | |
| 2014 | 7,470,511 | 11,739,374 | 16,008,237 | | |
| 2015 | 7,470,511 | 11,739,374 | 16,008,237 | | |
| 2016 | 7,470,511 | 11,739,374 | 16,008,237 | | |
| 2017 | 7,470,511 | 11,739,374 | 16,008,237 | | |
| Total | 59,782,345 | 81,126,661 | 102,470,977 | | |

ATF estimates that the total, undiscounted amount spent on bump-stock-type devices was \$102.5 million. While the retail prices of these bump-stock-type devices remained constant over the eight years of sales, these purchases occurred over time; therefore, ATF presents the discounted value at 3% and 7% in Table 6 to account for the present value of these purchases.

Table 6—The Amount Spent Purchasing Bump-Stock-Type Devices, Discounted at 3% and 7%

| Year | Undiscounted | 3% | 7% |
|------|--------------|--------------|--------------|
| 2011 | \$11,214,896 | \$13,001,138 | \$15,729,472 |
| 2012 | 11,214,896 | 12,622,464 | 14,700,441 |
| 2013 | 16,008,237 | 17,492,633 | 19,610,779 |
| 2014 | 16,008,237 | 16,983,139 | 18,327,831 |
| 2015 | 16,008,237 | 16,488,484 | 17,128,814 |

Slide Fire AR-15 Bump Fire Stocks (archived page on Jan. 28, 2017), https://web.archive.org/web/20170128085532/http://www.slidefire.com/products/ar-platform (last visited Nov. 28, 2018).

Bump Fire Systems (archived page on Feb. 21, 2015), https://web.archive.org/web/20150221050223/http://bumpfiresystems.com/ (last visited Nov. 28, 2018).

| 2016 | 16,008,237 | 16,008,237 | 16,008,237 |
|-----------------|-------------|-------------|-------------|
| 2017 | 16,008,237 | 15,541,978 | 14,960,969 |
| Total | 102,470,977 | 108,138,073 | 116,466,542 |
| Annualized Cost | | 15,404,959 | 19,504,391 |

*66548 Because these purchases occurred in the past, ATF's discount years start at -5 and increase to 0 to account for the Executive Order 13771 standard that costs be presented in 2016 dollars. With these assumptions, ATF estimates that the annualized, discounted amount spent on bump-stock-type devices was \$15.4 million and \$19.5 million at 3% and 7%, respectively.

Based on the same discounting formula, ATF estimates that the total undiscounted cost for the low estimate is \$59.7 million, and the total discounted values are \$64.1 million and \$70.6 million at 3% and 7%, respectively. The annualized values for the low estimates of the total number of bump-stock-type devices sold are \$9.1 million and \$11.8 million at 3% and 7%, respectively. For the 400,000-unit estimate provided by the public commenter, the total undiscounted amount is \$81.1 million, and the total discounted values would be \$86.1 million and \$93.5 million at 3% and 7%, respectively. The annualized values for the 400,000-unit sales estimate are \$12.3 million and \$15.7 million at 3% and 7%, respectively.

Forgone Future Production and Sales

ATF has estimated the lost production and lost sales that will occur in the 10 years after the implementation of this final rule. These estimates take into account lost revenue from manufacturers and retailers. ATF does not parse out manufacturing and retail sales, in order to limit double counting. In order to do this, ATF needed to predict the number of devices that would have been sold in the future in the absence of a rule. Such a prediction should take account of recent expected changes in the demand for and supply of bump-stock-type devices. For example, based on a survey, three of the four known, large former retailers of bump-stock-type devices no longer sell bump-stock-type devices as a result of the Las Vegas shooting, nor do they intend to sell them in the future. Moreover, while ATF has estimated the number of bump-stock-type devices manufactured since 2010, ATF is without sufficient information to estimate the number of individuals who were interested in acquiring bump-stock-type devices prior to the Las Vegas shooting but would no longer want them due to the shooting.

Another recent change affecting individuals' future purchases of bump-stock-type devices is that certain States have already banned such devices. These States are California, Connecticut, Delaware, Florida, Hawaii, Maryland, Massachusetts, New Jersey, Rhode Island, Vermont, and Washington.[FN24] The effect of States' bans on individuals' future purchases of bump-stock-type devices should not be attributed to this final rule since these reductions in purchases will happen with or without the rule. However, ATF was unable to quantify the impact of States' bans and thus was unable to account for the future effects of these bans in the estimate of the effects of the final rule.

Cal. Penal Code sections 16930, 32900 (2018); 2018 Conn. Acts 18-29 (Reg. Sess.); Del. Code Ann. tit. 11, section 1444(a)(6) (2018); Fla. Stat. section 790.222 (2018); Haw. Rev. Stat. section 134-8.5 (2018); Md. Code. Ann., Crim. Law section 4-305.1 (2018); Mass. Gen. Laws ch. 140, section 121, 131 (2018); N.J. Stat. Ann. sections 2C:39-3(l), 2C:39-9(j); 11 R.I. Gen. Laws section 11-47-8(d) (2018); Vt. Stat. Ann. tit. 13, section 4022 (2018); 2018 Wash. Sess. Laws ch. 7, pp. 196-220.

Based on previously mentioned comments from large retailers, ATF expects that, even in the absence of this rule, some retailers would not sell bump-stock-type devices in the future. In order to estimate the expected future reduction in demand for bump-stock-type devices as a result of the Las Vegas shooting, ATF assumes that the reduction of sales by large retailers that has already occurred would be a reasonable estimate of the future reduction of sales overall that would occur in the absence of this rule. In the NPRM, ATF estimated that two of the four large retailers would remain in the market to sell bump-stock-type devices. 83 FR at 13452. Since then, one of these remaining retailers merged with one of the large retailers that opted not to sell bump-

stock-type devices, resulting in only one large retailer remaining in the market. For the purposes of this regulatory analysis, it is estimated that the one large retailer that would otherwise intend to keep selling bump-stock-type devices sells 4,400 of such devices annually. Removing the effects of these three large retailers from the future market reduces ATF's primary estimate of 74,988 in past annual production to an estimate of 62,084 (= 75,284-13,200) in annual sales that would have occurred in the future in the absence of this rule. Table 7 provides the estimated breakdown of lost production and sales forgone due to this rule.

Table 7—Forgone Production and Sales of Future Bump-Stock-Type Devices

| Year | Number of | Undiscounted | 3% | 7% |
|-----------------|-------------------------|--------------|-----------------|-----------------|
| | bump-stock-type devices | | | |
| 2018 | 62,084 | \$19,893,303 | \$19,313,886.10 | \$18,591,871.67 |
| 2019 | 62,084 | 19,893,303 | 18,751,345.73 | 17,375,581.00 |
| 2020 | 62,084 | 19,893,303 | 18,205,190.03 | 16,238,860.74 |
| 2021 | 62,084 | 19,893,303 | 17,674,941.77 | 15,176,505.37 |
| 2022 | 62,084 | 19,893,303 | 17,160,137.64 | 14,183,649.88 |
| 2023 | 62,084 | 19,893,303 | 16,660,327.81 | 13,255,747.55 |
| 2024 | 62,084 | 19,893,303 | 16,175,075.54 | 12,388,549.11 |
| 2025 | 62,084 | 19,893,303 | 15,703,956.84 | 11,578,083.28 |
| 2026 | 62,084 | 19,893,303 | 15,246,560.04 | 10,820,638.58 |
| 2027 | 62,084 | 19,893,303 | 14,802,485.47 | 10,112,746.34 |
| Total | | 198,933,027 | 169,693,906.98 | 139,722,233.51 |
| Annualized Cost | | | 24,173,981.19 | 23,398,969.82 |

^{*66549} Based on these estimates, ATF estimates that the undiscounted value of forgone future sales over 10 years is \$198.9 million, undiscounted, or \$24.2 million and \$23.4 million, annualized and discounted at 3% and 7%.

Disposal

This final rule requires the destruction of existing bump-stock-type devices. The cost of disposal has several components. For individuals who own bump-stock-type devices, there is a cost for the time and effort to destroy the devices or ensure that they are destroyed by another party. For retailers, wholesalers, and manufacturers, there is a cost of the time and effort to destroy or ensure the destruction of any devices held in inventory. In addition, this final rule incorporates the option of abandoning bump-stock-type devices at an ATF office. Based on the response from commenters, this cost is taken into consideration under the foregone sales section.

Individuals who have purchased bump-stock-type devices prior to the implementation of this rule must destroy the devices themselves prior to the effective date of the rule or abandon them at their local ATF office. Options for destroying the devices include melting, crushing, or shredding in a manner that renders the device incapable of ready restoration. Since the majority of bump-stock-type devices are made of plastic material, individuals can use a hammer to break apart the devices and throw the pieces away. Other destruction options that ATF has historically accepted include torch cutting or sawing the device in a

manner that removes at least ¼ inch of material for each cut and completely severs design features critical to the functionality of the device as a bump-stock-type device.

Current possessors are encouraged to undertake destruction of the devices. However, current possessors also have the option to abandon bump-stock-type devices at the nearest ATF office. Current possessors of bump-stock-type devices will have until the effective date of the rule (90 days from date of publication in the Federal Register) to comply. Additional information on the destruction of bump-stock-type devices will be available on www.atf.gov.

Based on comments received on the ANPRM, unsellable inventory could be worth approximately \$35,000 per large retailer. One commenter, assumed to be a large retailer, stated that its gross sales were \$140,000. Another commenter assumed to be a midrange retailer had gross sales of \$18,000. No known sales were reported for a small retailer. Based on the proportion of sales among the large, midrange, and small retailers, ATF estimates that the amounts in existing inventory for each type of retailer are as follows:

• Large retailer: \$35,000;

• midrange retailer: \$4,500; and

• small retailer: \$74.[FN25]

25 Midrange: \$4,500 = (\$18,000/\$140,000) * \$35,000. Small: \$74 = (8/3,800) * \$35,000.

There were no comments on the NPRM about these assumptions or the methodology used based on the ANPRM comments. Therefore, the analysis used to determine the cost of unsellable inventory remains the same for this final rule.

The commenter assumed to be a large retailer also commented that the opportunity cost of time needed to destroy existing inventory will be approximately \$700. ATF's subject matter experts estimate that a retailer could use a maintenance crew to destroy existing inventory. To determine the hourly time needed to destroy existing inventory, ATF used the \$700 reported amount, divided by the loaded wage rate of a building cleaning worker. ATF subject matter experts also suggest that existing packers would be used for a midrange retailer and the minimum wage would be used for a small retailer. A multiplier of 1.43 was applied to unloaded wage rates to account for fringe benefits.[FN26] Table 9 provides the wages used for this analysis.

BLS Series ID CMU201000000000D, CMU201000000000P (Private Industry Compensation = \$32.35)/(Private Industry Wages and Salaries = \$22.55) = 1.43. BLS average 2016. U.S. Bureau of Labor Statistics, https://beta.bls.gov/dataQuery/find?fq=survey: [cm]&s=popularity:D.

Table 9—Wage Series To Destroy Existing Inventory

| Wage series | Series code | Unloaded wage rate | Loaded | Source |
|----------------------------------|-------------|--------------------|-----------|--|
| | | | wage rate | |
| Individual | | \$13.60 | \$13.60 | |
| Minimum Wage Rate | Min Wage | 7.25 | 10.4 0 | https://www.bls.gov/opub/reports/minimum-wage/2016/home.htm. |
| Packers, Packagers, and Handlers | 53-7064 | 11.74 | 16.84 | https://www.bls.gov/oes/2016/may/oes537064.htm. |

| Retail Salespersons | 41-2031 | 13.07 | 18.75 | https://www.bls.gov/oes/2016/may/oes412031.htm. |
|--------------------------------------|---------|--------|-------|---|
| Building Cleaning Workers, All Other | 37-2019 | 14. 88 | 21.34 | https://www.bls.gov/oes/2016/may/oes372019.htm. |

^{*66550} Based on the estimated wages and reported opportunity cost of time, ATF estimates that it will take a large retailer 32.8 hours, a midrange retailer 0.45 hours, and a small retailer 0.25 hours to destroy existing inventory. Table 10 provides the per-retailer estimated opportunity cost of time.

Table 10—Opportunity Cost of Time To Destroy Existing Inventory

| Population | Incremental | Hourly | Opportunity |
|---------------------|-------------|--------|--------------|
| | cost | | |
| | | burden | |
| | | | cost of time |
| Individual | \$13.60 | 0.25 | \$3.40 |
| Retailer (Large) | 21.34 | 32.8 | 699.95 |
| Retailer (Midrange) | 16.84 | 0.45 | 7.58 |
| Retailer (Small) | 19.51 | 0.25 | 4.88 |

As stated earlier, ATF estimates that there are 520,000 bump-stock-type devices already purchased by the public. For the purposes of this analysis, we estimate the following calculations to destroy bump-stock-type devices:

- Individual: \$1.3 million = (1.8 million * 75%)
- Retailer (Large): 3 retailers * \$699.95 opportunity cost of time + (\$35,000 inventory * 75%)
- Retailer (Midrange): 569 retailers * \$7.58 opportunity cost of time + (\$4,500 inventory * 75%)
- Retailer (Small): 1139 retailers * \$4.88 opportunity cost of time + (\$74 inventory * 75%)

 Based on the opportunity cost of time per bump-stock-type device, and the estimated opportunity cost of time per retailer, ATF provides the cost to destroy all existing bump-stock-type devices in Table 11.

Table 11—Cost of Existing Inventory and Opportunity Cost of Time To Destroy Existing Devices by Individual and Retailer Size

| | Original cost | Reduced cost | Net change |
|---------------------|---------------|--------------|------------|
| Individual | \$1,768,000 | \$1,326,000 | \$442,000 |
| Retailer (Large) | 142,800 | 80,850 | 61,950 |
| Retailer (Midrange) | 3,421,252 | 1,924,687 | 1,496,565 |
| Retailer (Small) | 116,279 | 66,176 | 50,103 |

| | Total Disposal Cost | 5,448,330 | 3,397,713 | 2,050,618 |
|--|---------------------|-----------|-----------|-----------|
|--|---------------------|-----------|-----------|-----------|

For those abandoning bump-stock-type devices, we estimate that 130,000 individuals, 1 large retailer, 138 midrange retailers, and 139 small retailers will abandon them at their nearest ATF office. Table 12 provides the cost of gas, travel time, and mileage to abandon them.

Table 12—Cost of Gas, Travel Time, and Mileage

| Cost item | Rate | Source |
|------------------------------|---------|--|
| Gas Consumption | \$0.545 | https://www.gsa.gov/travel-resources. |
| Hours of Weekend Travel Time | 1.556 | https://nhts. ornl.gov/2009/pub/stt.pdf. |
| Miles Traveled | 7 | https://nhts.ornl.gov/2009/pub/stt.pdf. |

Assuming these devices will be abandoned during leisure hours, ATF uses the leisure wage rate of \$13.60. ATF estimates that the cost to travel to ATF offices will be \$24.98 per trip = (13.60 leisure wage * 1.556 hours of weekend travel time) + (\$0.545 gas consumption * 7 miles traveled). For the purposes of this analysis, we estimate the following calculations to destroy bump-stock-type devices:

- Individual: 520,000 bump-stock-type devices * 25% * \$24.98
- Retailer (Large): (1 retailer * \$24.98 travel cost) + (\$35,000 inventory * 25%)
- Retailer (Midrange): (190 retailers *\$24.98 travel cost) + (\$4,500 inventory * 25%)
- Retailer (Small): (379 retailers * \$24.98 travel cost) + (\$74 inventory * 75%)

Table 13 provides the additional cost of abandoning bump-stock-type devices at ATF offices.

Table 13—Disposal Cost To Abandon Bump-Stock-Type Devices at ATF Offices

| Individual | \$3,247,400 |
|-----------------------|-------------|
| Retailer (Large) | 8,775 |
| Retailer (Midrange) | 1,375,025 |
| Retailer (Small) | 1,373,974 |
| Total Cost to Abandon | 6,005,174 |

^{*66551} We treat all costs of disposal of existing devices owned by individuals or held in inventory by retailers or manufacturers as if they occur in 2018. Therefore, the disposal costs of the rule in 2018 would include the total undiscounted value of existing stock of bump-stock-type devices and the total cost of disposal from Tables 11 and 13 for the total disposal cost of \$9.4 million.

Government Costs

Because ATF allows bump-stock-type device owners to abandon these devices at ATF offices, ATF incorporates the government cost to dispose of these devices. ATF estimates that an agent at a GS-13 level will dispose of the device in 0.25 hours at a loaded wage rate of \$41.07 per hour.[FN27] ATF anticipates that it will cost \$1.3 million to destroy these devices in-house.

Office of Personnel Management, Salary Table 2018-GS, https://www.opm.gov/policy-data-oversight/pay-leave/salaries-wages/salary-tables/pdf/2018/GS h.pdf.

Overall, ATF estimates that the total cost of this final rule would be \$312.1 million over a 10-year period of future analysis. This cost includes the first-year cost to destroy all existing bump-stock-type devices, including unsellable inventory and opportunity cost of time. Table 14 provides the 10-year cost of this final rule.

Table 14—10-Year Cost of Final Rule

| Year | Undiscounted | 3% | 7% |
|-----------------|--------------|-------------|-------------|
| 2018 | 133,101,942 | 129,225,186 | 124,394,338 |
| 2019 | 19,893,303 | 18,751,346 | 17,375,581 |
| 2020 | 19,893,303 | 18,205,190 | 16,238,861 |
| 2021 | 19,893,303 | 17,674,942 | 15,176,505 |
| 2022 | 19,893,303 | 17,160,138 | 14,183,650 |
| 2023 | 19,893,303 | 16,660,328 | 13,255,748 |
| 2024 | 19,893,303 | 16,175,076 | 12,388,549 |
| 2025 | 19,893,303 | 15,703,957 | 11,578,083 |
| 2026 | 19,893,303 | 15,246,560 | 10,820,639 |
| 2027 | 19,893,303 | 14,802,485 | 10,112,746 |
| Total | 312,141, 666 | 279,605,207 | 245,524,700 |
| Annualized Cost | | 32,778,260 | 34,957,194 |

The total 7% discounted cost is \$249.6 million, and the annualized discounted costs would be \$32.8 million and \$35.0 million annualized at 3% and 7% respectively.

Cost Savings

ATF did not calculate any cost savings for this final rule.

Benefits

As reported by commenters, the purpose of this rule is to amend ATF regulations to clarify that bump-stock-type devices are "machineguns" as defined by the NFA and GCA. Additionally, a desired outcome of this rule is increased public safety. While there has been only one known shooting involving bump-stock-type devices, banning such devices could result in reduced casualties as a consequence of reducing incidents of shootings involving a weapon fitted with a bump-stock-type device. A ban also could result in less danger to first responders when responding to incidents, because it prevents shooters from using devices that allow them to shoot semiautomatic firearms automatically.

Alternatives

Alternative 1—No change alternative. This alternative would leave the regulations in place as they currently stand. Since there would be no changes to regulations, there would be no cost, savings, or benefits to this alternative.

Alternative 2—Patronizing a shooting range. Individuals wishing to experience shooting a "full-auto" firearm could go to a shooting range that provides access to lawfully registered "pre-1986" machineguns to customers, where the firearm remains on the premises and under the control of the shooting range. ATF does not have the information to determine which, where, or how many gun ranges provide such a service and is therefore not able to quantify this alternative.

Alternative 3—Opportunity alternatives. Based on public comments, individuals wishing to replicate the effects of bump-stock-type devices could also use rubber bands, belt loops, or otherwise train their trigger finger to fire more rapidly. To the extent that individuals are capable of doing so, this would be their alternative to using bump-stock-type devices.

Public comments from the NPRM suggested other alternatives:

- 1. Provide amnesty or "grandfathering." This alternative was rejected because since the passage of 18 U.S.C. 922(o), amnesty registration of machineguns is not legally permissible; all devices determined to be machineguns are prohibited except as provided by exceptions established by statute.
- 2. Provide licensing and background checks. This alternative was rejected because only Congress can add a new class of firearm to the GCA and impose licensing or acquisition requirements on it.
- 3. Provide compensation for the destruction of the devices. This alternative was rejected because only Congress has the authority to offer monetary compensation.
- 4. Provide a medical exemption. This alternative was rejected because neither the NFA nor the GCA provides for medical exemptions to acquire an otherwise prohibited firearm. Only Congress can add medical exemptions.
- 5. Prohibit only future manufacture and sales. This alternative was rejected because ATF does not have the authority to restrict only the future manufacture or sale of bump-stock-type devices.
- 6. Provide a quota. This alternative was rejected because ATF lacks authority to implement it, as all devices determined to be machineguns are prohibited across the board.
- 7. Institute a tax. This alternative was rejected because ATF lacks authority to establish excise taxes.
- 8. Improve security at mass events. This alternative was rejected because improved security must be paired with reasonable regulations to increase public safety and reduce violent crime.
- 9. Congressional legislation. This alternative was rejected because issuance of this rule will not prevent Congress from taking action on bump-stock-type devices.
- 10. Leave the issue to the States. This alternative was rejected because ATF is responsible for implementing the NFA and GCA, Federal laws designed to maintain public safety. Issuance of this rule will not *66552 prevent States from taking action on bump-stock-type devices.
- 11. Improved law enforcement capabilities. This alternative was rejected because while training and equipment may assist law enforcement efforts, they are not a substitute for the Department's exercise of its public safety responsibility of interpreting the NFA and GCA appropriately.

B. Executive Order 13132

This regulation will not have substantial direct effects on the States, the relationship between the Federal Government and the States, or the distribution of power and responsibilities among the various levels of government. Therefore, in accordance with section 6 of Executive Order 13132 (Federalism), the Attorney General has determined that this regulation does not have sufficient federalism implications to warrant the preparation of a federalism summary impact statement.

C. Executive Order 12988

This regulation meets the applicable standards set forth in sections 3(a) and 3(b)(2) of Executive Order 12988 (Civil Justice Reform).

D. Regulatory Flexibility Act (RFA)

Summary of Findings

ATF performed a Final Regulatory Flexibility Analysis of the impacts on small businesses and other entities from the final rule. Based on the information from this analysis, ATF found:

- It is estimated that the remaining manufacturer will go out of business;
- There are 2,281 retailers, of which most are estimated to be small;
- There are no relevant government entities.

Final Regulatory Flexibility Analysis

The Regulatory Flexibility Act (RFA) establishes "as a principle of regulatory issuance that agencies shall endeavor, consistent with the objectives of the rule and of applicable statutes, to fit regulatory and informational requirements to the scale of the businesses, organizations, and governmental jurisdictions subject to regulation. To achieve this principle, agencies are required to solicit and consider flexible regulatory proposals and to explain the rationale for their actions to assure that such proposals are given serious consideration." Pub. L. 96-354, section 2(b), 94 Stat. 1164 (1980).

Under the RFA, the agency is required to consider if this rule will have a significant economic impact on a substantial number of small entities. Agencies must perform a review to determine whether a rule will have such an impact. If the agency determines that it will, the agency must prepare a regulatory flexibility analysis as described in the RFA.

Under the RFA (5 U.S.C. 604(a)), the final regulatory flexibility analysis must contain:

- A statement of the need for, and objectives of, the rule;
- A statement of the significant issues raised by the public comments in response to the initial regulatory flexibility analysis, a statement of the assessment of the agency of such issues, and a statement of any changes made in the proposed rule as a result of such comments;
- The response of the agency to any comments filed by the Chief Counsel for Advocacy of the Small Business Administration in response to the proposed rule, and a detailed statement of any change made to the proposed rule in the final rule as a result of the comments;

- A description of and an estimate of the number of small entities to which the rule will apply or an explanation of why no such estimate is available;
- A description of the projected reporting, recordkeeping, and other compliance requirements of the rule, including an estimate of the classes of small entities that will be subject to the requirement and the type of professional skills necessary for preparation of the report or record; and
- A description of the steps the agency has taken to minimize the significant economic impact on small entities consistent with the stated objectives of applicable statutes, including a statement of the factual, policy, and legal reasons for selecting the alternative adopted in the final rule and why each one of the other significant alternatives to the rule considered by the agency that affect the impact on small entities was rejected.

The RFA covers a wide range of small entities. The term "small entities" comprises small businesses, not-for-profit organizations that are independently owned and operated and are not dominant in their fields, and governmental jurisdictions with populations of less than 50,000. 5 U.S.C. 601(3)-(6). ATF determined that the rule affects a variety of large and small businesses (see the section below titled "A description of and an estimate of the number of small entities to which the rule will apply or an explanation of why no such estimate is available"). Based on the requirements above, ATF prepared the following regulatory flexibility analysis assessing the impact on small entities from the rule.

A Statement of the Need for, and Objectives of, the Rule

Agencies take regulatory action for various reasons. One of the reasons is to carry out Congress's policy decisions, as expressed in statutes. Here, this rulemaking aims to apply Congress's policy decision to prohibit machineguns. Another reason underpinning this regulatory action is the failure of the market to compensate for negative externalities caused by commercial activity. A negative externality can be the byproduct of a transaction between two parties that is not accounted for in the transaction. This final rule is addressing a negative externality. The negative externality of the commercial sale of bump-stock-type devices is that they could be used for criminal purposes. This poses a public safety issue, which the Department is trying to address.

A Statement of the Significant Issues Raised by the Public Comments in Response to the Initial Regulatory Flexibility Analysis, a Statement of the Assessment of the Agency of Such Issues, and a Statement of Any Changes Made in the Proposed Rule as a Result of Such Comments

Several commenters suggested that this rule will devastate companies that manufacture bump-stock-type devices and the local communities that they employ. The Department concurs that this rule will prevent manufacturers of bump-stock-type devices from producing and selling them. Based on publicly available information, the Department estimates that there is only one manufacturer actively producing and selling such devices. For the purposes of this rule, it is considered a small business. Due to the requirements of the NFA, there are no alternatives that are scalable by business size for this rule.

Some commenters suggested that the RFA requires agencies to consider the innovative impacts that small businesses have on the firearms market. ATF interprets the RFA's usage of "innovation" in terms of regulatory approaches that the agency could use to allow for small businesses to compete against non-small businesses. As there are no non-small businesses that manufacture bump-stock-type devices, ATF was unable to determine any regulatory approaches that would allow small manufacturers to compete with non-small businesses with respect to manufacturing bump-stock-type devices.

The Response of the Agency to Any Comments Filed by the Chief Counsel for Advocacy of the Small Business Administration in Response to the Proposed Rule, and a Detailed Statement of Any Change Made to the Proposed Rule in the Final Rule as a Result of the Comments

There were no comments filed by the Chief Counsel for Advocacy of the Small Business Administration in response to the proposed rule. Therefore, no *66553 changes were made to the proposed rule in the final rule as a result of comments.

A Description of and an Estimate of the Number of Small Entities to Which the Rule Will Apply or an Explanation of Why No Such Estimate Is Available

This rule would affect primarily manufacturers of bump-stock-type devices, FFLs that sell bump-stock-type devices, and other small retailers of firearm accessories that have invested in the bump-stock-type device industry. Based on publicly available information, there is one manufacturer affected. Of the known retailers, the large retailers do not intend to continue selling bump-stock-type devices. There may be some small retailers that would have intended to continue selling these devices had this final rule not been promulgated and would thus be affected by this final rule. Based on the information from this analysis, ATF found:

- There is 1 manufacturer who is likely to be a small entity;
- There are 2,270 retailers who are likely to be small entities;
- There are no government jurisdictions affected by this final rule; and
- There are no nonprofits found in the data.

A Description of the Projected Reporting, Recordkeeping and Other Compliance Requirements of the Rule, Including an Estimate of the Classes of Small Entities Which Will Be Subject to the Requirement and the Type of Professional Skills Necessary for Preparation of the Report or Record

There are no reporting or recordkeeping requirements for this final rule. The only relevant compliance requirement consists of disposing of all existing inventory of bump-stock-type devices for small entities that carry them. There would not be any professional skills necessary to record or report in this final rulemaking.

A Description of the Steps the Agency Has Taken to Minimize the Significant Economic Impact on Small Entities Consistent With the Stated Objectives of Applicable Statutes, Including a Statement of the Factual, Policy, and Legal Reasons for Selecting the Alternative Adopted in the Final Rule and Why Each One of the Other Significant Alternatives to the Rule Considered by the Agency Which Affect the Impact on Small Entities Was Rejected

Alternatives were considered in this final rule. Alternatives include making no regulatory changes. ATF rejected this alternative because it would not be consistent with ATF's interpretation of the statutory term "machinegun." There were no other regulatory alternatives to this proposal that ATF has been able to identify that accomplish the objective of this final rule.

E. Small Business Regulatory Enforcement Fairness Act of 1996

This rule is a major rule as defined by section 251 of the Small Business Regulatory Enforcement Fairness Act of 1996, 5 U.S.C. 804. This rule is likely to be considered major as it is economically significant and is projected to have an effect of over \$100 million on the economy in at least the first year of the rule.

F. Congressional Review Act

This rule is a major rule as defined by the Congressional Review Act, 5 U.S.C. 804. This rule is likely to be considered major as it is economically significant and is projected to have an effect of over \$100 million on the economy in at least the first year of the rule's existence.

G. Unfunded Mandates Reform Act of 1995

This rule will not result in the expenditure by State, local, and tribal governments, in the aggregate, or by the private sector, of \$100 million or more in any one year, and it will not significantly or uniquely affect small governments. Therefore, no actions were deemed necessary under the provisions of the Unfunded Mandates Reform Act of 1995, Public Law 104-4, 109 Stat. 48.

H. Paperwork Reduction Act of 1995

This final rule does not impose any new reporting or recordkeeping requirements under the Paperwork Reduction Act, 44 U.S.C. 3501-3521.

Disclosure

Copies of the final rule, proposed rule, and comments received in response to the proposed rule will be available for public inspection through the Federal eRulemaking portal, http://regulations.gov, or by appointment during normal business hours at: ATF Reading Room, Room 1E-062, 99 New York Ave. NE, Washington, DC 20226; telephone: (202) 648-8740.

List of Subjects

27 CFR Part 447

Administrative practice and procedure, Arms and munitions, Chemicals, Customs duties and inspection, Imports, Penalties, Reporting and recordkeeping requirements, Scientific equipment, Seizures and forfeitures.

27 CFR Part 478

Administrative practice and procedure, Arms and munitions, Customs duties and inspection, Exports, Imports, Intergovernmental relations, Law enforcement officers, Military personnel, Penalties, Reporting and recordkeeping requirements, Research, Seizures and forfeitures, Transportation.

27 CFR Part 479

Administrative practice and procedure, Arms and munitions, Excise taxes, Exports, Imports, Military personnel, Penalties, Reporting and recordkeeping requirements, Seizures and forfeitures, Transportation.

Authority and Issuance

Accordingly, for the reasons discussed in the preamble, 27 CFR parts 447, 478, and 479 are amended as follows:

PART 447—IMPORTATION OF ARMS, AMMUNITION AND IMPLEMENTS OF WAR

1. The authority citation for 27 CFR part 447 continues to read as follows:

Authority: 22 U.S.C. 2778, E.O. 13637, 78 FR 16129 (Mar. 8, 2013).

27 CFR § 447.11

2. In § 447.11, revise the definition of "Machinegun" to read as follows:

27 CFR § 447.11

§ 447.11 Meaning of terms.

* * * * *

Machinegun. A "machinegun", "machine pistol", "submachinegun", or "automatic rifle" is a firearm which shoots, is designed to shoot, or can be readily restored to shoot, automatically more than one shot, without manual reloading, by a single function of the trigger. The term shall also include the frame or receiver of any such weapon, any part designed and intended solely and exclusively, or combination of parts designed and intended, for use in converting a weapon into a machinegun, and any

combination of parts from which a machinegun can be assembled if such parts are in the possession or under the control of a person. For purposes of this definition, the term "automatically" as it modifies "shoots, is designed to shoot, or can be readily restored to shoot," means functioning as the result of a self-acting or self-regulating mechanism that allows the firing of multiple rounds through a single function of the trigger; and "single function of the trigger" means a single pull of the trigger and analogous motions. The term "machinegun" includes a bump-stock-type device, i.e., a device that allows a semi-automatic firearm to shoot more than one shot *66554 with a single pull of the trigger by harnessing the recoil energy of the semi-automatic firearm to which it is affixed so that the trigger resets and continues firing without additional physical manipulation of the trigger by the shooter.

* * * * *

PART 478—COMMERCE IN FIREARMS AND AMMUNITION

3. The authority citation for 27 CFR part 478 continues to read as follows:

Authority: 5 U.S.C. 552(a); 18 U.S.C. 921-931; 44 U.S.C. 3504(h).

27 CFR § 478.11

4. In § 478.11, revise the definition of "Machine gun" by adding two sentences at the end of the definition to read as follows: 27 CFR § 478.11

§ 478.11 Meaning of terms.

* * * * *

Machine gun. * * * For purposes of this definition, the term "automatically" as it modifies "shoots, is designed to shoot, or can be readily restored to shoot," means functioning as the result of a self-acting or self-regulating mechanism that allows the firing of multiple rounds through a single function of the trigger; and "single function of the trigger" means a single pull of the trigger and analogous motions. The term "machine gun" includes a bump-stock-type device, i.e., a device that allows a semi-automatic firearm to shoot more than one shot with a single pull of the trigger by harnessing the recoil energy of the semi-automatic firearm to which it is affixed so that the trigger resets and continues firing without additional physical manipulation of the trigger by the shooter.

* * * * *

PART 479—MACHINE GUNS, DESTRUCTIVE DEVICES, AND CERTAIN OTHER FIREARMS

5. The authority citation for 27 CFR part 479 continues to read as follows:

Authority: 26 U.S.C. 5812; 26 U.S.C. 5822; 26 U.S.C. 7801; 26 U.S.C. 7805.

27 CFR § 479.11

6. In § 479.11, revise the definition of "Machine gun" by adding two sentences at the end of the definition to read as follows: 27 CFR § 479.11

§ 479.11 Meaning of terms.

* * * * *

Machine gun. * * * For purposes of this definition, the term "automatically" as it modifies "shoots, is designed to shoot, or can be readily restored to shoot," means functioning as the result of a self-acting or self-regulating mechanism that allows the firing of multiple rounds through a single function of the trigger; and "single function of the trigger" means a single pull of the trigger and analogous motions. The term "machine gun" includes a bump-stock-type device, i.e., a device that allows a semi-automatic firearm to shoot more than one shot with a single pull of the trigger by harnessing the recoil energy of the semi-automatic firearm to which it is affixed so that the trigger resets and continues firing without additional physical manipulation of the trigger by the shooter.

* * * * *

Dated: December 18, 2018.

Matthew G. Whitaker,

Acting Attorney General.

[FR Doc. 2018-27763 Filed 12-21-18; 8:45 am]

BILLING CODE 4410-FY-P

End of Document

© 2023 Thomson Reuters. No claim to original U.S. Government Works.